April 19, 2016

City of Watertown
Attn: Justin Wood, City Engineer
Room 305, City Hall
245 Washington Street
Watertown, NY 13601

Re: **Site Plan Review Application**
Roth Industries, Inc. - Proposed Building Addition
City Center Industrial Park, Lots 2,3,4,5, (A&C Proj. #2016-033)
268 Bellew Ave South, Watertown, NY

Dear Mr. Wood:

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC on behalf of John Pezzi of Roth Industries, Inc is requesting to be included on the agenda for the May 3, 2016 City of Watertown Planning Board meeting for a proposed 27,500 sf building addition and associated site improvements located at 268 Bellew Ave South, on Tax Parcel 9-43-105.000. Included with this submission is sixteen (16) copies of the Cover Letter, Site Plan Application, Short SEQR Environmental Assessment Form, and three (3) copies of the Engineering Report. Also attached are three (3) full size and thirteen (13) 11"x17" copies of the Site Development Plan, Preliminary Survey, and Preliminary Architectural Plans. A check for $50.00 is also included for the review fee.

The project consists of a 27,500 SF building addition on the west side of the existing manufacturing facility and associated site improvements. Site improvements include a 43,500 SF asphalt storage area expansion west of the existing asphalt storage area, chain link fence to enclose the expanded storage area, an additional southern entrance drive from Rail Drive, to access the expanded storage yard and now shipping area loading dock, an additional truck access drive and expansion of the receiving area access, site lighting, grading and drainage. The proposed building addition will connect to the existing buildings utilities therefore no new utility services are required for the project. Two (2) existing stormwater treatment basins will be expanded to accommodate the increased runoff associated with the building addition and asphalt storage/parking area expansion.

Roth Industries intends to begin construction this summer as soon as approvals are granted. If there are any questions, please feel free to contact our office at your earliest convenience.

Sincerely,
Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC

Matthew R. Morgia

Matthew R. Morgia, P.E.
Civil Engineer

Attachments
Cc: John Pezzi – Roth Industries
Mike Aubertine – Aubertine & Currier

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

NYS WBE/DBE Certified
SBA Woman Owned
Small Business (WOSB)

aubertinecurrier.com

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Watertown, New York 13601

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Partners
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Architect

Patrick J. Currier, R.A.
Architect

Brian A. Jones, AIA.,
LEED AP BD+C
Architect

Matthew R. Morgia, P.E.
Civil Engineer

Jayson J. Jones, P.L.S.
Land Surveyor

CITY OF WATERTOWN
SITE PLAN APPLICATION

** Provide responses for all sections. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Failure to submit required information by the submittal deadline will result in **not** making the agenda for the upcoming Planning Board meeting.

PROPERTY LOCATION

Proposed Project Name: Roth Industries Building Addition

Tax Parcel Number: 9-43-105.000

Property Address: 268 Bellew Ave South, Watertown, NY 13601

Existing Zoning Classification: Light Industry

OWNER OF PROPERTY

Name: Roth Industries, Inc.

Address: 268 Bellew Ave South
Watertown, NY 13601

Telephone Number: 888-266-7684

Fax Number: (315) 475-0200

APPLICANT

Name: Roth Industries, Inc.

Address: 268 Bellew Ave South
Watertown, NY 13601

Telephone Number: (888) 266-7684

Fax Number: (315) 475-0200

Email Address: johnp@roth-usa.com

ENGINEER/ARCHITECT/SURVEYOR

Name: Aubertine and Currier, Architects, Engineers & Land Surveyors, PLLC

Address: 522 Bradley Street
Watertown, NY 13601

Telephone Number: (315) 782-2005

Fax Number: (315) 782-1472

Email Address: mrm@aubertinecurrier.com

OPTIONAL MATERIALS:

☐ **PROVIDE AN ELECTRONIC (.DWG) COPY OF THE SITE PLAN WITH AS-BUILT REVISIONS. This will assist the City in keeping our GIS mapping up-to-date.**

REQUIRED MATERIALS:

** The following drawings with the listed information **ARE REQUIRED, NOT OPTIONAL.** If the required information is not included and/or addressed, the Site Plan Application will **not** be processed**.**

☒ **COMPLETED ENVIRONMENTAL ASSESSMENT FORM** (Contact us if you need help choosing between the Short EAF and the Full EAF). The Complete EAF is available online at: http://www.dec.ny.gov/permits/6191.html

☒ **ELECTRONIC COPY OF ENTIRE SUBMISSION** (PDF) A single, combined PDF of the entire application, including cover letter, plans, reports, and all submitted material.

☒ **BOUNDARY and TOPOGRAPHIC SURVEY**
(Depict existing features as of the date of the Site Plan Application. This Survey and Map must be performed and created by a Professional Land Surveyor licensed and currently registered to practice in the State of New York. This Survey and Map must be stamped and signed with an original seal and signature on at least one copy, the rest may be copies thereof.

☒ All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).

☒ 1' contours are shown and labeled with appropriate spot elevations.

☒ All existing features on and within 50 feet of the subject property are shown and labeled.

☒ All existing utilities on and within 50 feet of the subject property are shown and labeled.

☒ All existing easements and/or right-of-ways are shown and labeled.

☐ Existing property lines (bearings and distances), margins, acreage, zoning, existing land use, reputed owner, adjacent reputed owners and tax parcel numbers are shown and labeled.

☒ The north arrow and graphic scale are shown.

☒ **DEMOLITION PLAN** (If Applicable)

☒ All existing features on and within 50 feet of the subject property are shown and labeled.

☒ All items to be removed are labeled in darker text.

☒ **SITE PLAN**

☒ Include a reference to the coordinate system used(NYS NAD83-CF preferred).

☒ All proposed above ground features are depicted and clearly labeled.

☒ All proposed features are clearly labeled "proposed".

N/A ☐ All proposed easements and right-of-ways are shown and labeled.

☒ Land use, zoning, and tax parcel number are shown.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ All vehicular and pedestrian traffic circulation is shown including a delivery or refuse vehicle entering and exiting the property.

☒ Proposed parking and loading spaces including ADA accessible spaces are shown and labeled.

N/A ☐ Sidewalks within the City Right-of-Way meet Public-Right-of-Way (PROWAG) standards.

☒ Refuse Enclosure Area (Dumpster), if applicable, is shown. Section 161-19.1 of the Zoning Ordinance states, "No refuse vehicle or refuse container shall be parked or placed within 15 feet of a party line without the written consent of the adjoining owner, if the owner occupies any part of the adjoining property".

☐ Proposed snow storage areas are shown on the plans.

☒ The north arrow and graphic scale are shown.

☒ **GRADING PLAN**

☒ All proposed below ground features including elevations and inverts are shown and labeled.

☒ All proposed above ground features are shown and labeled.

☒ The line work and text for all proposed features is shown darker than existing features.

N/A ☐ All proposed easements and right-of-ways are shown and labeled.

☒ 1' existing contours are shown dashed and labeled with appropriate spot elevations.

☒ 1' proposed contours are shown and labeled with appropriate spot elevations.

☒ All elevations are North American Vertical Datum of 1988 (NAVD88).

**Preliminary Plan will be shown on Final Submission ☐ Sediment and Erosion control are shown and labeled on the grading plan unless separate drawings have been provided as part of a Stormwater Pollution Prevention Plan (SWPPP).

☒ UTILITY PLAN

☒ All proposed above and below ground features are shown and labeled.

☒ All existing above and below ground utilities including sanitary, storm water, water, electric, gas, telephone, cable, fiber optic, etc. are shown and labeled.

N/A ☐ All proposed easements and right-of-ways are shown and labeled.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

N/A ☐ The following note has been added to the drawings stating, "All water main and service work must be coordinated with the City of Watertown Water Department. The Water Department requirements supersede all other plans and specifications provided."

☒ LANDSCAPING PLAN

☒ All proposed above ground features are shown and labeled.

☒ All proposed trees, shrubs, and other plantings are shown and labeled.

☒ All proposed landscaping and text are shown darker than existing features.

☒ All proposed landscaping is clearly depicted, labeled and keyed to a plant schedule that includes the scientific name, common name, size, quantity, etc.

☒ For additional landscaping requirements where nonresidential districts and land uses abut land in any residential district, please refer to Section 310-59, Landscaping of the City's Zoning Ordinance.

☒ **Site Plan complies with and meets acceptable guidelines set forth in Appendix A - Landscaping and Buffer Zone Guidelines (August 7, 2007).**

☒ **PHOTOMETRIC PLAN** (If Applicable)

☒ All proposed above ground features are shown.

☒ Photometric spot elevations or labeled photometric contours of the property are clearly depicted. Light spillage across all property lines shall not exceed 0.5 foot-candles.

☐ **CONSTRUCTION DETAILS and NOTES**

Preliminary Site Plan, Details will be submitted next Submission

☐ All details and notes necessary to adequately complete the project including, but not limited to, landscaping, curbing, catch basins, manholes, water line, pavement, sidewalks, trench, lighting, trash enclosure, etc. are provided.

N/A ☐ Maintenance and protection and traffic plans and notes for all required work within City streets including driveways, water laterals, sanitary laterals, storm connections, etc. are provided.

N/A ☐ The following note must be added to the drawings stating:
"All work to be performed within the City of Watertown margin will require sign-off from a Professional Engineer, licensed and currently registered to practice in the State of New York, that the work was built according to the approved site plan and applicable City of Watertown standards. Compaction testing will be required for all work to be performed within the City of Watertown margin and must be submitted to the City of Watertown Codes Department."

☒ **PRELIMINARY ARCHITECTUAL PLANS** (If Applicable)

☒ Floor plan drawings, including finished floor elevations, for all buildings to be constructed are provided.

☒ Exterior elevations including exterior materials and colors for all buildings to be constructed are provided.

☒ Roof outline depicting shape, slope and direction is provided.

☒ **ENGINEERING REPORT**

**** The engineering report at a minimum includes the following:**

☒ Project location

☒ Project description

☒ Existing and proposed sanitary sewer flows and summary

☒ Water flows and pressure

☒ Storm Water Pre and Post Construction calculations and summary

☒ Traffic impacts

☒ Lighting summary

☒ Landscaping summary

☒ **GENERAL INFORMATION**

Preliminary Site Plan, Details will be submitted next Submission

☐ ALL ITEMS ARE STAMPED AND SIGNED WITH AN ORIGINAL SIGNATURE BY A PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR SURVEYOR LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK.

Preliminary Site Plan, SWPPP will be submitted next Submission

☐ If required, a copy of the Stormwater Pollution Prevention Plan (SWPPP) submitted to the NYSDEC will also be sent to the City of Watertown Engineering Department.

N/A ☐ ** If required, a copy of all submittals sent to the New York State Department of Environmental Conservation (NYSDEC) for the sanitary sewer extension permit will also be sent to the City of Watertown Engineering Department.

N/A ☐ ** If required, a copy of all submittals sent to the New York State Department of Health (NYSDOH) will also be sent to the City of Watertown Engineering Department.

** When NYSDEC or NYSDOH permitting is required, the property owner/applicant shall retain a licensed Professional Engineer to perform inspections of the proposed utility work and to certify the completed works were constructed in substantial conformance with the approved plans and specifications.

N/A ☐ Signage will not be approved as part of this submission. It requires a sign permit from the City Code Enforcement Bureau. See Section 310-52.2 of the Zoning Ordinance.

☒ Plans have been collated and properly folded.

N/A ☐ If an applicant proposes a site plan with multiple buildings and any of those buildings front on a private drive, the City Council will name the private drive by resolution and the building(s) will be given an address number on that private drive by City staff. The applicant may propose a name for the private drive for the City Council's consideration.

Proposed Street Name: _____

☒ For non-residential uses, the proposed Hours of Operation shall be indicated.

☒ Signature Authorization form or letter signed by the owner is submitted allowing the applicant to apply on behalf of the owner if the applicant is not the property owner.

☒ Explanation for any item not checked in the Site Plan Checklist.

The following site plan application is a preliminary submission. Further developed site plans, detail sheets, engineering report and SWPPP will be submitted with the next site plan submission

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Project: Proposed Building Addition Sponsor: Roth Industries, Inc

Name of Action or Project:

Proposed Building Addition

Project Location (describe, and attach a location map):

268 Bellew Ave South, Watertown, NY

Brief Description of Proposed Action:

The project consists of a 27,500 SF building addition on the west side of the existing manufacturing facility and associated site improvements. Site improvements include a 43,500 SF asphalt storage area expansion west of the existing asphalt storage area, chain link fence to enclose the expanded storage area, an additional southern entrance drive from Rail Drive, to access the expanded storage yard and now shipping area loading dock, an additional truck access drive and expansion of the receiving area access, site lighting, grading and drainage. The proposed building addition will connect to the existing buildings utilities therefore no new utility services are required for the project. Two (2) existing stormwater treatment basins will be expanded to accommodate the increased runoff associated with the building addition and asphalt storage/parking area expansion.

Name of Applicant or Sponsor:	Telephone: 888-266-7684
Roth Industries, Inc.	E-Mail: johnp@roth-usa.com

Address:

268 Bellew Ave South

City/PO:	State:	Zip Code:
Watertown	NY	13601

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: City of Watertown Planning Board	☐	☑

3.a. Total acreage of the site of the proposed action? 8.86 acres
b. Total acreage to be physically disturbed? 3.92 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 8.86 acres

4. Check all land uses that occur on, adjoining and near the proposed action.

☑ Urban ☐ Rural (non-agriculture) ☑ Industrial ☑ Commercial ☐ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☑	☐
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐
There are wetlands located within the City Center Industrial Park and adjacent lands, but not within the Roth owned Lots 2,3,4,5.		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☐	☑
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,		
a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES		
Stormwater runoff will be directed to one of two on-site stormwater basins prior to discharging into the City municipal storm sewers.		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

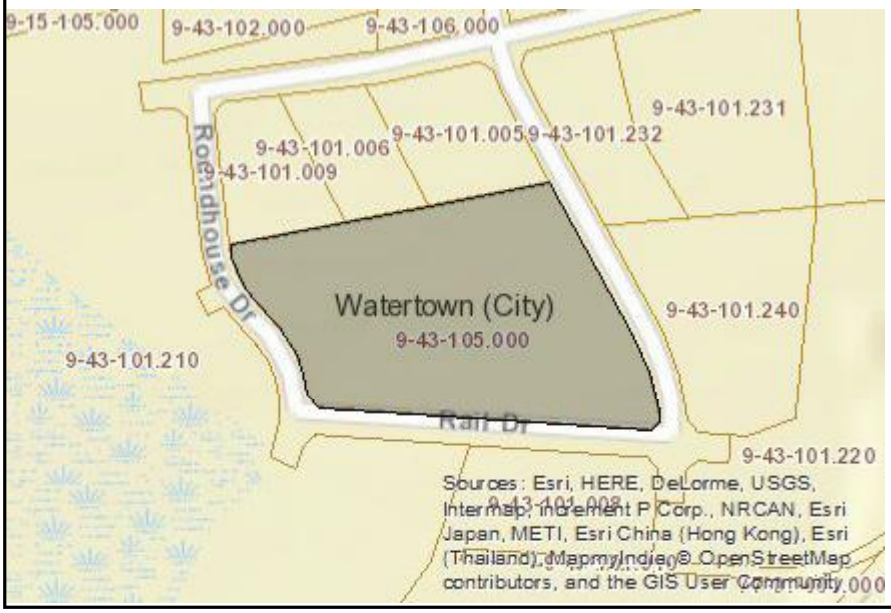
Applicant/sponsor name: John C Pessi Date: 4/19/16

Signature: _____

PRINT FORM

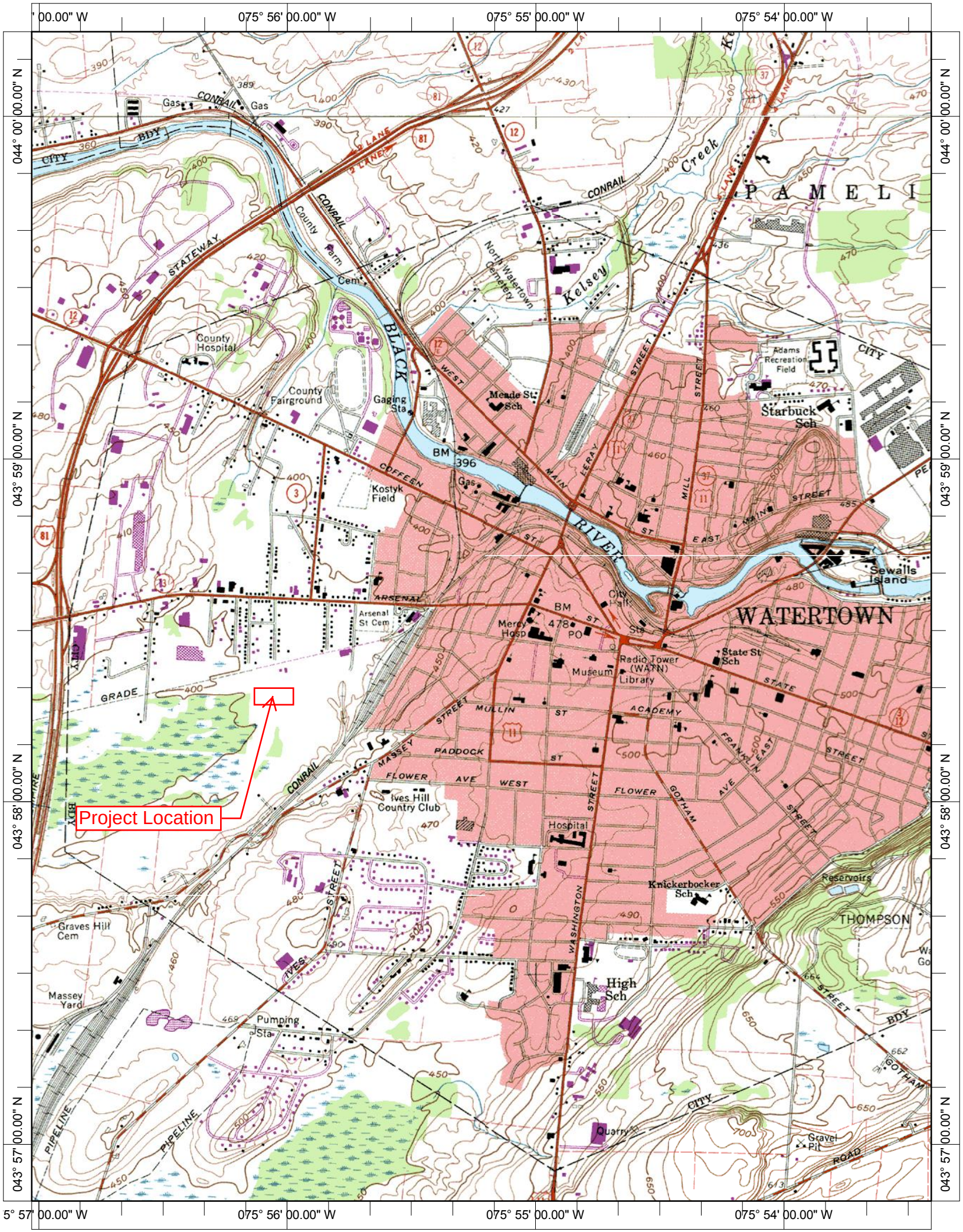
EAF Mapper Summary Report

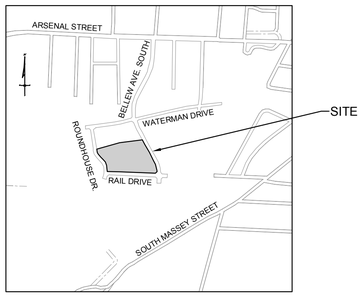
Wednesday, April 13, 2016 2:05 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	No





LOCATION MAP
NOT TO SCALE

LEGEND

CONTROL POINT		FIRE HYDRANT	
BENCHMARK		WATER VALVE	
CITY MONUMENT		SANITARY SEWER MANHOLE	
MAJOR CONTOUR	400	STORM DRAINAGE MANHOLE	
MINOR CONTOUR	401	CATCHBASIN	
PROPERTY LINE	PL PL	DRAINAGE CULVERT END	
ASSUMED STREET MARGIN		DRAINAGE END SECTION	
EASEMENT LINE	EA EA	LIGHT POLE	
SETBACK LINE		ELECTRIC HANDHOLE	
EDGE OF GRAVEL		TRANSFORMER	
CURB LINE		TELEPHONE PEDESTAL	
CURB CUT LINE		SIGN	
CHAIN LINK FENCELINE	X X	BOLLARD	
WATER LINE	W_X W_X	POST	
SANITARY SEWER LINE	SS_X SS_X	RIPRAP	
STORM CULVERT LINE	CP_X CP_X		
NATURAL GAS LINE	G_X G_X	TREES	
UNDERGROUND POWER LINE	E_X E_X		
TELEPHONE LINE	T_X T_X		
BUILDING FOUNDATION			

N
NYS CENTRAL ZONE (NAD 83(2011))
GRID NORTH
W E
S

STANDARD NOTES:

1. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

2. Only boundary survey maps with the surveyor's embossed seal or red ink seal are genuine true and correct copies of the surveyor's original work and opinion.

3. Certifications on this boundary survey map signify that the map was prepared in accordance with the current existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. The certification is limited to persons for whom the boundary survey map is prepared, to the title company, to the governmental agency, and to the lending institution listed on this boundary survey map.

4. The certifications hereon are not transferable.

5. The location of underground improvements or encroachments are not always known and often must be estimated. If any, underground improvements or encroachments are not covered by this certificate.

GENERAL NOTES:

1. The subject parcel is Jefferson County Real Property Tax Parcel No. 9-43-105

2. The subject parcel is a portion of the City of Watertown City Center Industrial Park. Zoning is per the City Center Industrial Park Declaration of Covenants and Restrictions, filed in the Jefferson County Clerk's Office as Instrument No. 2004-00000289 on January 8, 2004.

Article 2 - Site Requirements

Minimum Setback Requirements:
Front Yard Setback = 35 feet
Rear Yard Setbacks = 20 feet
Side Yard Setback = 20 feet

Minimum Lot Dimensions:
Width = 150 feet
Area = 44,000 sq. feet

Maximum Building Height = 40 feet
Maximum Lot Coverage by Buildings = 35%

3. All adjoiners are per the City of Watertown Real Property Office.

4. Adjoining property lines should be considered approximate and are shown for reference only.

5. This survey was prepared without the benefit of an abstract of title and is subject to any modifications which may occur as a result of a complete title search.

6. The underground utilities and features shown hereon have been located from above ground visible features and other available records and therefore their location should be considered approximate only. Other underground utilities and features may exist, either in service or abandoned, that are not indicated on this survey. Dig Safely New York (UFPO) should be contacted prior to performing any excavation activities.

7. The field survey was performed on March 11, 2016, March 14, 2016 and March 16, 2016.

8. Rail Drive is a public road with a reputed width of 66 feet.

9. Roundhouse Drive is a public road with a reputed width of 66 feet.

9. Bellew Avenue South is a public road with a reputed width of 66 feet.

10. The Horizontal Datum for this survey is based on NYS Central Zone NAD83(2011) (North American Datum 1983/2011).

11. The Vertical Datum for this survey is based on the National Geodetic Vertical Datum of 1929 (NGVD29).

MAP REFERENCE:

1. "Subdivision Final Plat City Center Industrial Park, Bellew Ave. South, Haney St., Waterman Drive, Roundhouse Drive, Rail Drive, City of Watertown, County of Jefferson, State of New York" dated September 30, 2003, and last revised January 07, 2004, prepared by GYMO Architecture, Engineering and Land Surveying P.C., filed in the Jefferson County Clerk's Office as File No. 3215 on January 14, 2004.

2. "Subdivision Final Plat City Center Industrial Park, Bellew Ave. South, Haney St., Waterman Drive, Roundhouse Drive, Rail Drive, City of Watertown, County of Jefferson, State of New York" dated September 30, 2003, and last revised October 15, 2008, prepared by GYMO Architecture, Engineering and Land Surveying P.C., filed in the Jefferson County Clerk's Office as File No. 4655 on November 21, 2008.

MAP REFERENCE:

1. "Subdivision Final Plat City Center Industrial Park, Bellew Ave. South, Haney St., Waterman Drive, Roundhouse Drive, Rail Drive, City of Watertown, County of Jefferson, State of New York" dated September 30, 2003, and last revised January 07, 2004, prepared by GYMO Architecture, Engineering and Land Surveying P.C., filed in the Jefferson County Clerk's Office as File No. 3215 on January 14, 2004.

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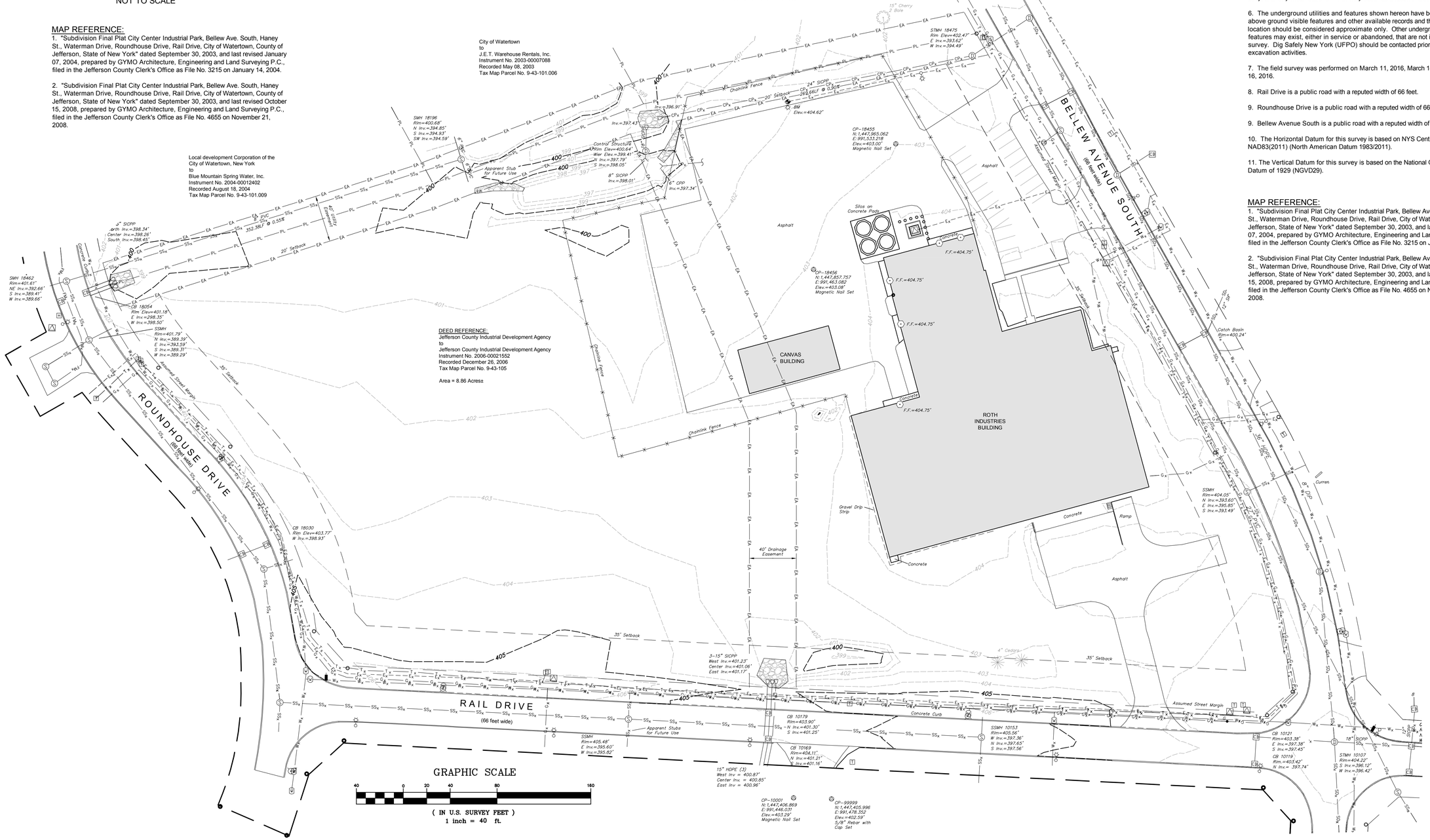
Alteri Bakery, Inc.
to
Jefferson County Industrial Development Agency
Liber 1654 of Deeds, Page 310
Recorded December 29, 1998
Tax Map Parcel No. 9-43-101.005

City of Watertown
to
J.E.T. Warehouse Rentals, Inc.
Instrument No. 2003-00007088
Recorded May 08, 2003
Tax Map Parcel No. 9-43-101.006

Local development Corporation of the City of Watertown, New York
to
Blue Mountain Spring Water, Inc.
Instrument No. 2004-00012402
Recorded August 18, 2004
Tax Map Parcel No. 9-43-101.009

DEED REFERENCE:
Jefferson County Industrial Development Agency
to
Jefferson County Industrial Development Agency
Instrument No. 2006-00021552
Recorded December 26, 2006
Tax Map Parcel No. 9-43-105

Area = 8.86 Acres±



GRAPHIC SCALE
40 0 20 40 80 160
(IN U.S. SURVEY FEET)
1 inch = 40 ft.

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

522 Bradley Street
Watertown, New York 13601

aubertinecurrier.com

Phone: (315)782-2005
Fax: (315)782-1472

PRELIMINARY

TOPOGRAPHIC SURVEY MAP of the LANDS of
JEFFERSON COUNTY INDUSTRIAL DEVELOPMENT AGENCY
268 BELLEW AVENUE SOUTH
CITY of WATERTOWN
JEFFERSON COUNTY, NEW YORK

PROJECT NO:	2016-033
SCALE:	1"=40'
DRAWN BY:	JDB, ODL
CHECKED BY:	JJJ
ISSUE DATES:	April 19, 2016

2016-033 ROTH-VF-SB001.dwg

VF-101

LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE		
WATERLINE	Wx Wx	W W
SANITARY SEWER	SSx SSx	SS SS
STORM SEWER	SDx SDx	SD SD
OVERHEAD UTILITIES	OUx OUx	OU OU
UNDERGROUND ELECTRIC	Ex Ex	E E
GAS	Gx Gx	G G
FIRE HYDRANT		
WATER VALVE	W	
SANITARY MANHOLE	S	
STORM MANHOLE	D	D
CATCH BASIN	CB CB	CB CB
UTILITY POLE AND GUY		
LIGHT POLE		

PLANNING DATA

ZONING: LIGHT INDUSTRY
USE: INDUSTRIAL BUILDING (26,800 SF BUILDING ADDITION)

ITEM	REQUIRED	AS PROVIDED
MIN. LOT AREA	--	386,092 SQ. FT. (8.86 ACRES)
MIN. FRONTAGE	--	648'
MIN. FRONT SETBACK	0'	0'
MIN. REAR YARD SETBACK	0'	166'
MIN. SIDE YARD SETBACK	0'	N/A
PARKING REQUIREMENTS - LIGHT INDUSTRIAL = 66,000 SF OF FLOOR AREA OFFICE SPACE = 2,500 SF OF FLOOR AREA	80 SPACES = 16,000 SF OF PARKING AREA	19 SPACES PLUS 100,000 SF OF PARKING AREA
LIMITS OF DISTURBANCE	±3.92 ACRES	

TRAFFIC INFORMATION
(ITE TRAFFIC GENERATION, 7TH EDITION)

WEEKDAY, AM	ENTERING EXITING	22 5
WEEDKDAY, PM	ENTERING EXITING	13 15
SATURDAY	ENTERING EXITING	6 5

SITE LIGHTING SCHEDULE

SYMBOL	FIXTURE	MOUNTING HEIGHT	QUANTITY
LED-1	IST-E01-LED-E1-BL4-BZ BY EATON LIGHTING	16' MOUNTING HEIGHT (MOUNTED ON BUILDING)	4

GENERAL NOTES:

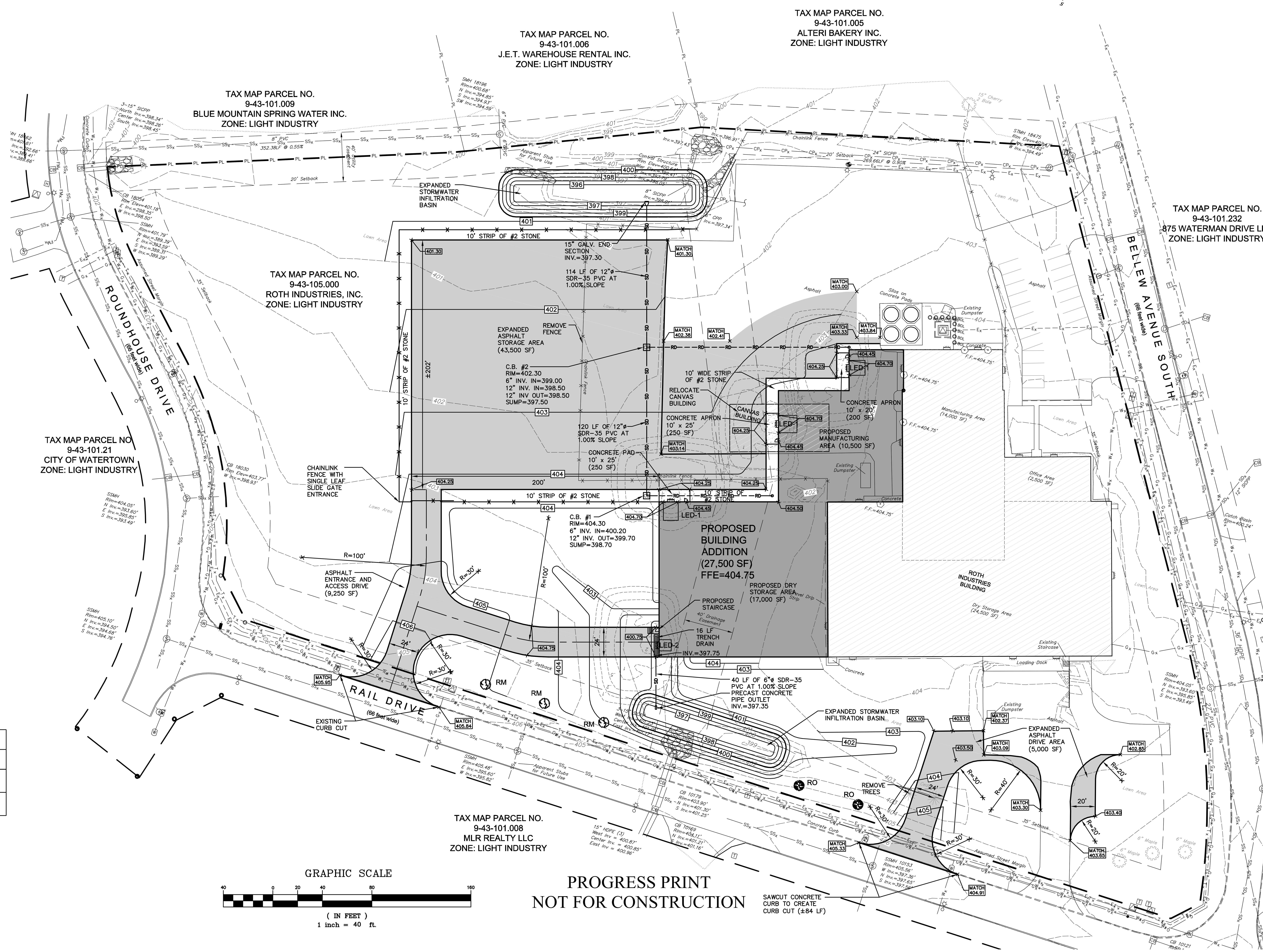
1. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES, (1-800-962-7962). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
2. THE ONSITE TOPOGRAPHIC, UTILITY, AND PLANIMETRIC SURVEY FOR THE PROJECT AREA WAS CONDUCTED BY AUBERTINE AND CURRIER, PLLC ON 03/11/2016, 03/14/2016, 03/16/2016, 04/06/2016, 04/14/2016. UTILITY LOCATIONS WERE PLOTTED FROM VISIBLE EVIDENCE AND RECORD DRAWINGS PROVIDED BY THE CITY OF WATERTOWN ENGINEERING DEPARTMENT. VERTICAL DATUM IS BASED ON NAVD88 DATUM AND THE HORIZONTAL DATUM IS BASED ON NAD83(96).
3. ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED THAT HE MUST OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY HIMSELF.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND BONDS NECESSARY TO OBTAIN SAID PERMITS WHERE APPLICABLE.
6. SITE CONTRACTOR TO PROVIDE EROSION AND DUST CONTROL AS REQUIRED.
7. A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AT THE CONTRACTORS EXPENSE.
8. PAVED AREAS WILL BE SAWCUT PRIOR TO EXCAVATION AND PAVING OPERATIONS. SAW CUT AREAS WILL BE TACK COATED PRIOR TO PAVING. TACK COAT SHALL MEET THE REQUIREMENTS OF ASPHALT OF ASPHALT EMULSION FOR TACK COAT, NYSDOT TABLE 702-9.
9. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY INTO NATURAL STREAM CHANNELS.
10. ALL TREES AND WETLANDS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTORS EXPENSE.
11. CONTRACTOR SHALL PERFORM ALL ROADWAY CONNECTION WORK IN ACCORDANCE WITH NYSDOT SPECIFICATIONS. ALL ROADWAY WORK SHALL BE IN ACCORDANCE WITH NYSDOT MAINTENANCE AND PROTECTION OF TRAFFIC REGULATIONS, INCLUDING FLAGMEN, BARRICADES, WARNING SIGNS/LIGHTS, ETC., WHERE WARRANTED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL, AT A NYSDEC ACCEPTABLE LOCATION, OF ALL MATERIALS NOT REUSED AS TRENCH BACKFILL.
13. EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVEREXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
14. COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN OR DRUM-TYPE OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 METHOD "C". CARE SHOULD BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF PIPE BEDDING.
15. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION. SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.
16. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS INCLUDING, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION:
    - RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
    - DISTANCE TIES TO ALL MANHOLES, CLEANOUTS, BENDS AND CORPORATION STOPS.
    - UTILITY REPAIRS, SIDEWALK, AND DRIVEWAY REPLACEMENTS CENTERLINE.
    - STATIONS OF BENDS, CLEANOUTS, VALVES AND CORPORATION STOPS.
    - DENOTE BENCH MARK REFERENCE USED.
    - PERIODIC OFFSETS.
    - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
    - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
    - PROVIDE TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.
17. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM AN ENGINEER LICENSED IN THE STATE OF NEW YORK THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.
19. UPON COMPLETION OF STORM SEWER FACILITIES AND ESTABLISHMENT OF VEGETATION, THE NEW AND EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.

PLANTING SCHEDULE

SYM	COMMON NAME	ABBREV.	BOTANICAL NAME	SIZE	QUANTITY
	RED MAPLE	RM	ACER RUBRUM	2" CALIPER	3
	NORTHERN RED OAK	RO	QUERCUS RUBRA	2" CALIPER	2

LANDSCAPING NOTE:

1. PLANT SPECIES WERE SELECTED BASED ON ABILITY TO GROW IN EXISTING SOIL CONDITIONS. PLANT SPECIFIED WERE ALSO CHOSEN BASED ON SIZE, SHAPE, COLOR AND GROWTH HABIT. ANY SUBSTITUTIONS SHALL BE APPROVED BY THE ARCHITECT.
2. ALL PLANTINGS SHALL ARRIVE ON-SITE BEARING THE ORIGINAL IDENTIFICATION TAGS SHOWING THEIR BOTANICAL NAME, COMMON NAME AND SIZE.
3. ALL TREES SHALL HAVE A 4' DIA. SHREDDED HARDWOOD MULCH RING AROUND THE BASE OF THE TREE.
4. ALL LANDSCAPED AREAS SHALL HAVE A WEED BARRIER FABRIC AND A MIN. OF 3" DEEP SHREDDED HARDWOOD MULCH.
5. ALL PLANTINGS SHALL BE THOROUGHLY WATERED AT THE TIME OF PLANTING.



PROGRESS PRINT
NOT FOR CONSTRUCTION

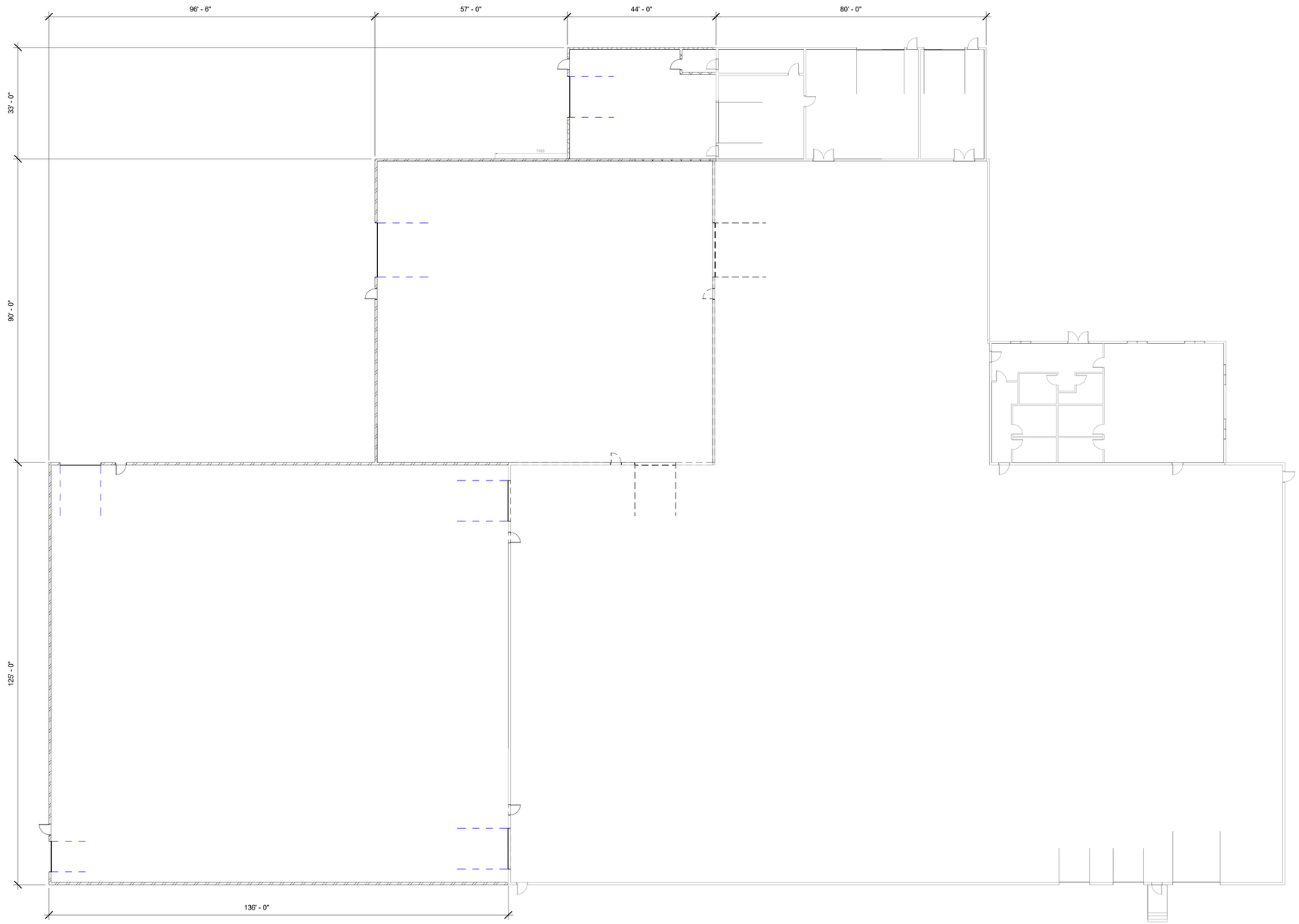
AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC
522 Bradley Street
Watertown, New York 13601
aubertinecurrier.com
Phone: (315)782-2005
Fax: (315)782-1472

ADDITION FOR ROTH INDUSTRIES AND ROTH GLOBAL PLASTICS
268 BELLEW AVE SOUTH
WATERTOWN, NEW YORK 13601
JEFFERSON COUNTY

PROJECT NO:	2016-033
SCALE:	1"=40'
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	04/19/2016

CONCEPTUAL SITE PLAN

C-100



1 FIRST FLOOR KEY PLAN
1/16" = 1'-0"

4/19/2016 2:37:02 PM

AUBERTINE and CURRIER
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Watertown, New York 13601

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MICHAEL L. AUBERTINE
REGISTERED ARCHITECT
027169
STATE OF NEW YORK

ADDITION FOR ROTH INDUSTRIES AND GLOBAL PLASTICS

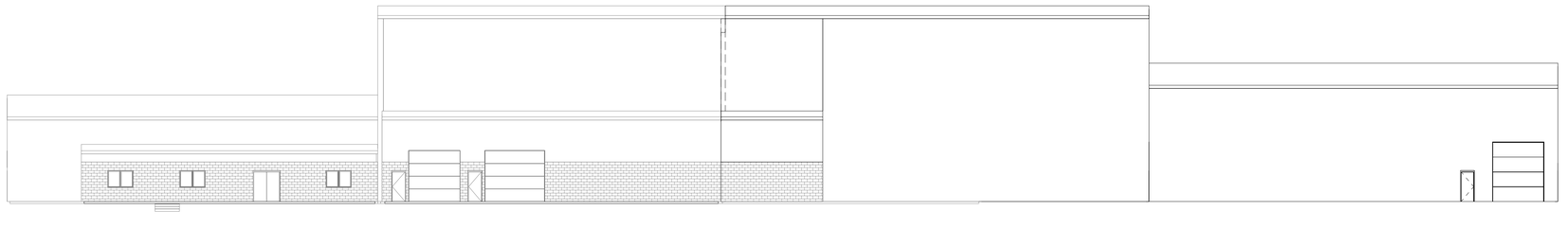
268 BELLEW AVE SOUTH
WATERTOWN, NEW YORK 13601
JEFFERSON COUNTY

PROJECT NO:	2016-033
SCALE:	1/16" = 1'-0"
DRAWN BY:	MLA
CHECKED BY:	MLA
ISSUE DATES:	APRIL 18, 2016

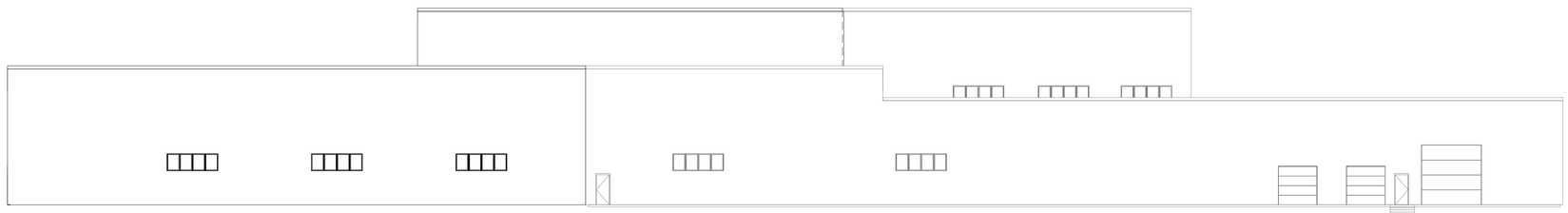
FIRST FLOOR KEY PLAN

A100

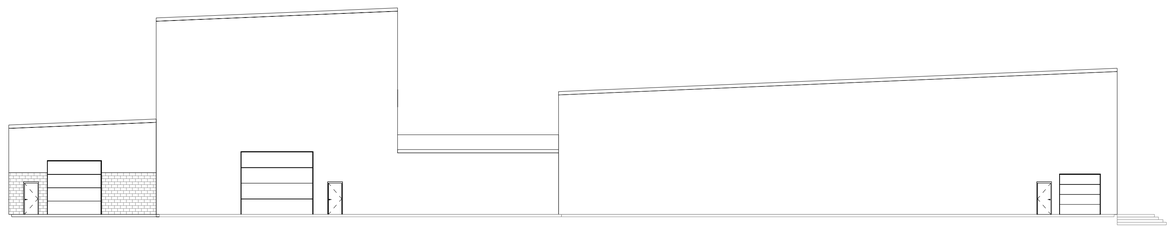
1 EAST ELEVATION
1/8" = 1'-0"



2 NORTH ELEVATION
1/16" = 1'-0"



3 SOUTH ELEVATION
1/16" = 1'-0"



4 WEST ELEVATION
1/16" = 1'-0"

4/18/2016 8:39:13 AM

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ADDITION FOR ROTH INDUSTRIES AND GLOBAL PLASTICS

268 BELLEW AVE SOUTH
WATERTOWN, NEW YORK 13601
JEFFERSON COUNTY

PROJECT NO:	2016-033
SCALE:	As indicated
DRAWN BY:	Author
CHECKED BY:	Checker
ISSUE DATES:	Issue Date

EXTERIOR ELEVATIONS

A200

PRELIMINARY ENGINEERING REPORT

ROTH INDUSTRIES, INC
PROPOSED BUILDING ADDITION
CITY CENTER INDUSTRIAL PARK, Lots 2,3,4,5
268 BELLEW AVE SOUTH
CITY OF WATERTOWN
JEFFERSON COUNTY, NEW YORK

Owner: Roth Industries, Inc.
268 Bellew Ave South
Watertown, NY 13601

April 19, 2016

Matthew R. Morgia, P.E.
Civil Engineer

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

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City of Watertown GIS Floodplain & Wetlands Map
Soils Map
Soils Description

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Appendix 3: Hydrologic and Hydraulic Analysis

Appendix 4: Parking and Traffic Calculations

1.0 SITE AND PROJECT DESCRIPTIONS

1.1 Location

The project is located at 268 Bellew Ave South on an industrial property within the City of Watertown's City Center Industrial Park. Roth Industries currently owns and operates the 8.86 acre facility located on Lots 2, 3, 4 & 5 of the Industrial park. The Industrial park Lots and associated infrastructure was developed by the City in 2001. The existing property contains a 41,000 SF building, 60,000 SF asphalt parking and storage area, and an 11,500 SF asphalt entrance drive and loading dock. The 41,000 SF building contains space for manufacturing, storage, and office area. The property is located on Tax Map Parcel No. 9-43-105.000. This parcel is zoned LI –Light Industry.

1.2 Project Description

The project consists of a 27,500 SF building addition on the west side of the existing manufacturing facility and associated site improvements. Site improvements include a 43,500 SF asphalt storage area expansion west of the existing asphalt storage area, chain link fence to enclose the expanded storage area, an additional southern entrance drive from Rail Drive, to access the expanded storage yard shipping area loading dock, an additional truck access drive and expansion of the receiving area access, site lighting, grading and drainage.

1.3 Site Topography

The existing 8.86 acre site is comprised of a 41,000 SF manufacturing facility and 60,000 SF parking and storage area on the eastern portion of the property and vegetated land on the western portion of the property. A chain link fence runs along the perimeter of the asphalt storage yard, separating the developed portion of the property from the undeveloped vegetated lawn area to the east.

The existing manufacturing facility, asphalt parking and storage area, and undeveloped vegetated lawn area all slope north at a slope varying between 1% and 2% via sheet flow to an existing stormwater detention basin located at the northwest corner of the storage yard. Runoff that enters the northern stormwater detention basin either infiltrates into the existing sandy soils or overflows and discharges east into a 24” SICPP storm pipe that connects to the Bellew Avenue South municipal storm sewer. The southeast truck access drive that permits access to the receiving area loading dock on the south side of the building drains south to a separate storm water detention basin where runoff either infiltrates into the existing sandy soils or overflows and discharges south into the city municipal storm sewer that crosses under Rail Drive. The detention basins were constructed as part of the 2006 Roth Industries Building Addition project.

The developed area of the project is not located within a 100 year flood plain.

1.4 Soil Classification

The project site is located in the City of Watertown, which is an urban environment and consists primarily of previously developed area. According to the USDA Web Soil Survey for Jefferson County, New York, the project area includes soils classified as silt loam of Hydrologic Group C/D to the east and sands of Hydrologic Group A to the west.

Soil Symbol	Soil Name	Hydrologic Group
CnB	Collamer Silt Loam	C/D
PoB	Plainfield Sand	A
Sc	Scarboro Mucky Loam Fine Sand	A/D
Ur	Urban Land	A

2.0 WATER FACILITIES

2.1 Existing Water Facilities

There are existing 8" municipal water mains located at the west, south, and east road frontage of the lot, along Roundhouse Drive, Rail Drive and Bellew Avenue South. An 8" water service extends from the Bellew Avenue south water main to the southeastern corner of the building. There are five (5) hydrants located within the Bellew Avenue South, Rail Drive and Roundhouse Drive City rights of ways that provide fire protection for the property.

2.2 Proposed Water Facilities

No additional water utilities are proposed for this project. The proposed building addition's plumbing will be connected to the existing building's plumbing.

2.3 Water Demand

The projected peak domestic water usage by the Roth Industries Facility is 225 GPD. This is based upon the projected flow of 15 GPD for each of the 15 employees expected to use the office.

3.0 SANITARY SEWER FACILITIES

3.1 Existing Sanitary Sewer Facilities

There are municipal sanitary sewer mains located within the Roundhouse Drive, Rail Drive, and Bellew Avenue South road right of ways that service the Industrial

park. The Roth Industries facility is served by an existing 6" sanitary sewer lateral that exits the east side of the building and connects to the Bellew Avenue south sanitary sewer main.

3.2 Proposed Sanitary Sewer Facilities

No additional sanitary sewer utilities are proposed for this project. The proposed building addition's plumbing will be connected to the existing buildings plumbing.

3.3 Sewer Flows

The projected design flows generated by the Roth Industries Facility is 225 GPD. Sewer flows are based upon the NYS DEC 2014 Design Standards for Wastewater Treatment Works projected flow rates of 15 GPD per employee. The expanded facility will have 15 employees.

4.0 STORMWATER FACILITIES

4.1 Existing Drainage

The existing manufacturing facility, asphalt parking and storage yard, and undeveloped vegetated lawn area all slope north to an existing stormwater detention basin located at the northwest corner of the storage yard. Runoff that enters the northern stormwater detention basin either infiltrates into the existing sandy soils or overflows and discharges east into a 24" SICPP storm pipe that connects to the Bellew Ave South municipal storm sewer. The southern receiving area truck access to the loading dock on the south side of the building drains south to a separate storm water detention basin where runoff either infiltrates into the existing sandy soils or overflows and discharges south into the city municipal storm sewer that crosses under Rail Drive. The detention basins were constructed as part of the 2006 Roth Industries Building Addition project.

The existing site drainage and runoff conditions were analyzed utilizing the SCS. HydroCAD calculations can be found in Appendix #2. Runoff calculations were completed for the 1, 10, and 100 year, 24 hour storm events. Peak discharge from the 10 year, 24 hour, storm event has been utilized for design and discussion purposes. The existing condition 10 year site discharge is 0.61 CFS.

4.2 Proposed Drainage

The proposed building addition project will entail approximately 3.92 acres of soil disturbance, therefore a stormwater pollution prevention plan (SWPPP) is required for the project per NYS DEC regulations. Stormwater treatment measures will be sized to provide the required Runoff Reduction (RRv), Water Quality (WQv) (90%), Channel Protection (CPv) (one year storm), Over Bank Flood (Qp) (10- year storm), and Extreme Storm (Qf) (100-year storm) treatment.

Preliminary hydrologic calculations have been performed for the project. The proposed conditions 10 year, 24 hour storm, peak discharge is 4.23 CFS. The increase in stormwater runoff from existing to proposed conditions is attributed to an approximate 1.86 acres of additional impervious area being constructed as part of the proposed building addition. Further design will be completed to provide the required Stormwater treatment.

The two existing stormwater detention basins will be regraded and reconfigured as infiltration basins to provide water quality and peak flow quantity storage and attenuation of the 1, 10, and 100 year storm events for Drainage Area's DA 1 and DA 2, to less than that of the existing condition.

5.0 ROADS / DRIVEWAYS

5.1 Existing Roads / Driveways

The project site is accessed from two (2) access drives, the Bellew Avenue South drive to the east and Rail Drive drive to the south. The Bellew Avenue South access drive is used by workers and visitors to the office. The asphalt storage yard and shipping area is also accessed thru the Bellew Avenue South drive. The drive connection to Rail Drive is utilized by delivery trucks to access the shipping and receiving area loading docks.

5.2 Proposed Roads / Driveways

The proposed project includes the addition of a new 24' wide driveway to allow access to the western asphalt storage yard expansion and shipping area loading dock from Rail Street. An additional access drive will also be constructed to improve truck access to the receiving area loading docks.

5.3 Traffic and Parking

Per the City of Watertown Zoning Laws (Section 310-47 and 310-48), one (1) parking space is required for every 1,000 SF of floor area for Light Industry uses and five (5) parking spaces are required for every 1,000 SF of floor area for Office Space. The existing Roth Industries facility has approximately 38,500 SF of floor space dedicated to manufacturing and dry storage area and 2,500 SF of floor area dedicated to office space. The proposed addition has an additional 27,500 SF of floor space dedicated to manufacturing and dry storage area. The resulting total floor space area after expansion is 66,000 SF of floor area dedicated to Light Industrial Uses and 2,500 SF of floor area dedicated to office space, equating to 80 required parking spaces (Light Industrial Floor Area = 67 Parking Spaces, Office Space Floor Area = 13 Parking Spaces). The proposed site has an existing parking lot with twenty (20) parking spaces and an approximately 100,000 SF asphalt storage yard. The existing parking lot contains nineteen (19) parking spaces which is more than the required thirteen (13) parking spaces for the office

area. The 67 parking spaces required for the industrial uses within the Roth Industries facility equates to 13,400 SF (67 spaces x 200 SF/parking space) of parking area. The proposed site contains approximately 100,000 SF of asphalt storage/parking area, far exceeding the required 13,400 SF of asphalt parking area for the facilities industrial floor area.

Trip generation calculations were performed utilizing data from the ITE Trip Generation Manual, 7th Edition. The resulting anticipated trips to the existing building and also the building post-construction (includes proposed building addition). The Weekday AM Peak Hour for the existing building generates approximately 13 trips/hour entering and 3 trips/hour exiting while the post-construction building generates approximately 22 trips/hour entering and 5 trips/hour exiting. The Weekday PM Peak Hour for the existing building generates approximately 8 trips/hour entering and 9 trips/hour exiting while the post-construction building generates approximately 13 trips/hour entering and 15 trips/hour exiting. The Saturday Peak Hour for the existing building generates approximately 4 trips/hour entering and 3 trips/hour exiting while the post-construction building generates approximately 6 trips/hour entering and 5 trips/hour exiting. See Appendix D for calculations.

6.0 PRIVATE UTILITIES

6.1 Gas, Electric, Telephone and Cable

Existing gas, electric and communication services are connected to the facility from Bellew Avenue South. No new private utility connections are proposed.

7.0 LIGHTING

7.1 Existing Site Lighting

The existing site lighting is provided by two (2) pole mounted lights located along the northern and eastern edge of the asphalt parking lot, and one (1) pole located north of the existing storage yard. Thirteen (13) building mounted lights located around the existing building. Multiple street lights on existing utility poles are located along Roundhouse Drive and Bellew Avenue South.

7.2 Proposed Site Lighting

Four (4) proposed building mounted LED wall pack cutoff light fixtures will be installed on the proposed building addition.

8.0 LANDSCAPING

8.1 Existing Landscaping

Existing landscape trees and shrubs are located along the eastern frontage between the parking lot/office and the Bellew Avenue South. The asphalt storage area is enclosed by a chain link fence, with screens slats along the northern and eastern sides.

Landscape trees are also located east of the building along Bellew Avenue South, and three (3) maple trees near the Bellew Avenue south and Rail Drive intersection. Two (2) cedar trees are located in the lawn area south of the building

8.2 Proposed Landscaping

No additional landscaping is proposed for this project. Each surrounding property is zoned Light Industry.

Sincerely,
Aubertine and Currier Architects, Engineers & Land Surveyors, P.L.L.C.

Matthew R. Morgia, P.E.
Civil Engineer

APPENDIX #1

LOCATION MAP
CITY OF WATERTOWN ZONING MAP
CITY OF WATERTOWN GIS FLOODPLAIN & WETLANDS MAP
SOILS MAP
SOILS DESCRIPTION

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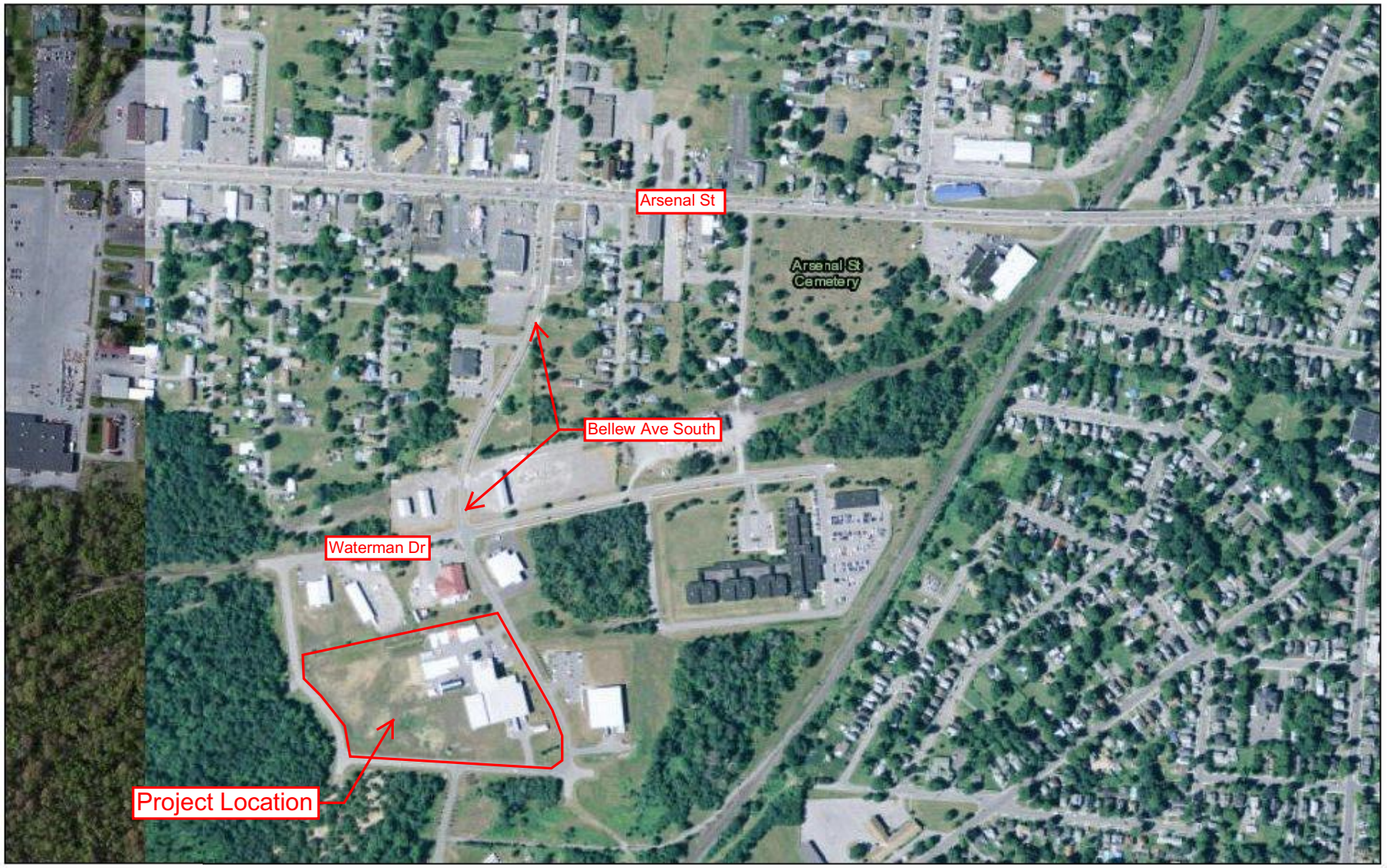
Roth Industries Location Map



April 13, 2016

1:9,028

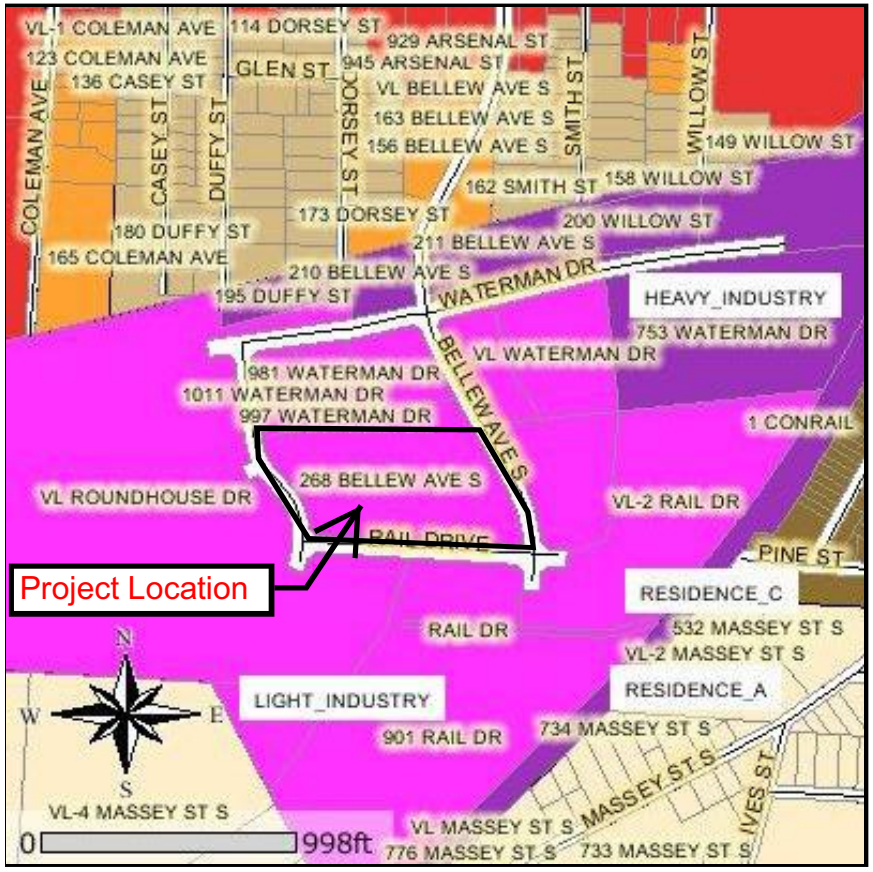
0 0.075 0.15 0.3 mi

0 0.1 0.2 0.4 km

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the

CNT

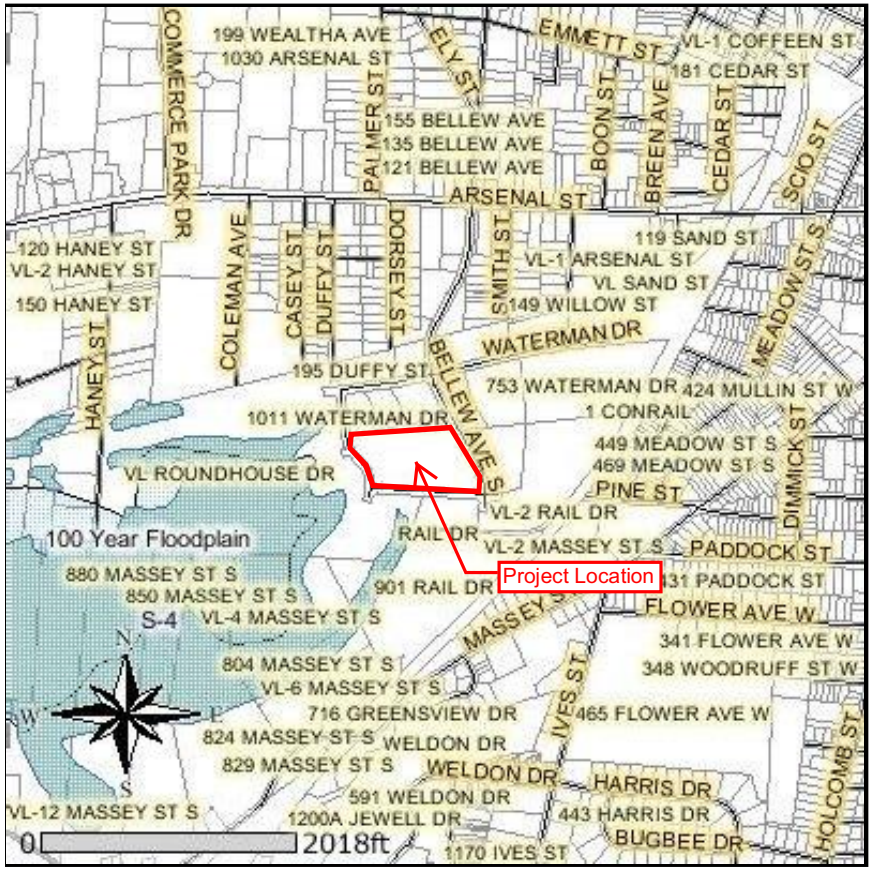
Roth Industries Zoning Map



April 13, 2016

Disclaimer: **This map was prepared by the City of Watertown Internet Mapping Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.**

Roth Industries Flood and Wetlands Map



April 13, 2016

Disclaimer: **This map was prepared by the City of Watertown Internet Mapping Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.**

Legend

- Roads
- Wetlands
- Floodplains
- 100 Year Floodplain
- 500 Year Floodplain
- Tax Parcels
- City Boundary

Soil Map—Jefferson County, New York
(Roth Industries)

Map Scale: 1:1,780 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 25 50 100 150

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, New York
Survey Area Data: Version 12, Sep 21, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2011—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Jefferson County, New York (NY045)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CnB	Collamer silt loam, 3 to 8 percent slopes	0.4	3.5%
PoB	Plainfield sand, 0 to 8 percent slopes	3.8	36.4%
Sc	Scarboro mucky loamy fine sand	1.3	12.8%
Ub	Udorthents,smoothed	4.9	47.3%
Totals for Area of Interest		**10.3**	**100.0%**

APPENDIX #2

SANITARY SEWER DESIGN CALCULATIONS

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AUBERTINE & CURRIER P.C.
ARCHITECTS, ENGINEERS & LAND SURVEYORS PLLC

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Watertown, NY 13601
Tel: (315) 782-2005
Fax: (315) 782-1472
www.AubertineCurrier.com

CALCULATION SHEET

Project Number: 2016-033 Date: _____

Project Name: Roth Industries Page: _____ Of: _____

Location: 268 Bellew Ave South Calc'd By: CWT

Sanitary Sewer Design Calculations

- Per DEC 2014 Design Standards for Intermediate Sized Wastewater Treatment Systems
- Use: Factory / Warehouse Distribution → Flow Rate = 15 GPD/Employee
- Roth Industries will have 15 Employees once the Building Addition is complete
- Design Flow: $Q = 15\ GPD/Employee \times 15\ Employees = 225\ GPD$

largest daily (24-hour) measured volume during the same period expressed in volume-per-unit time is an acceptable method for determining the maximum day flow rate. The analysis should account for operational variations (e.g. peak seasonal, weekends, special events, delivery period, etc.) and exclude extraneous data. There should be a reasonable explanation for the operational variations and any extraneous data excluded.

Method 3: Water Usage Data

A minimum of one year of data collected during similar operational conditions may be required by the Reviewing Engineer. If sufficient measured water usage data is not available, Method 3 should not be used. The average of the daily (24-hour) flow over the duration of the data collection period is an acceptable method for determining the average daily flow rate. The largest daily (24-hour) measured volume during the same period expressed in volume per unit time is an acceptable method for determining the maximum day flow rate. The analysis should account for operational variations (e.g. peak seasonal, weekends, special events, delivery period, etc.) and exclude extraneous data. There should be a reasonable explanation for operational variations and any extraneous data excluded.

For each of these methods, the peak hourly flow rate (largest hourly volume expressed in volume per unit time) should also be identified. When variation in the wastewater flow rate is expected to be substantial, it is necessary to examine the significant delivery period of the wastewater and base the system design upon this information to prevent an excessive rate of flow through wastewater collection and treatment systems. Flow equalization prior to treatment units should be considered to avoid hydraulic overloading of treatment units during peak loading periods (peak hourly flow and maximum daily flow).

Table B-3 Typical Per-Unit Hydraulic Loading Rates

Residential

Type of Use	*Unit*	*Gallons per Day*
Apartment	Per Bedroom	110/130/150[16]
Mobile Home Park	"Single-Wide" Home	220
	"Double-Wide" Home	330

[16] 110 gpd for post 1994 plumbing code fixtures; 130 gpd for pre 1994 fixtures; and 150 gpd for pre 1980 fixtures. Homes over 1,000 gpd, community systems, or lodging establishments with high flow fixtures must account for any higher peak flow periods.

Single Family Residence	Per Bedroom	110 / 130/ 150[17]

Campgrounds

Type of Use	*Unit*	*Gallons per Day*
Day Camp	Per Person	15
	Add for Shower	5
	Add for Lunch	5
Campground	Per Unsewered Site[18]	55(includes showers)
	Per Sewered Site – with water hookups	100
	Per Sewered Site – without water hookups	55
Campground Day Use	Per Person	5
Dumping Station[19]	Per Unsewered Site	10
	Per Sewered Site	5

Type of Use	*Unit*	*Gallons per Day*
Assisted Living Facility/Complex	Per Bed[20,21] – add 10 gpd for in room kitchen	110/130/150
Group Home (residential-style building)	Per Bed[20] - add 150 gpd per house for garbage grinder	110/130/150
Nursing Home (hospital care)	Per Bed[20,21]	175

[17] For individual household systems under 1,000 gpd, use design flows in the NYSDOH's *Wastewater Treatment Standards Residential Onsite Systems - Appendix 75- A.*

[18] Additional wastewater flow due to food service or laundry shall be accounted for. Structures available for overnight occupancy other than those meeting the definition of a camping unit shall be based on 150 gpd / unit for design flow purposes, pursuant to NYSDOH – *Chapter 1 State Sanitary Code Subpart 7-3 Campgrounds.*

[19] The addition of flow for dump station sewage may be prorated by using an estimated percentage of sites suited for RV use based on historical data. No reduction for low flow fixture usage should be applied here.

[20] Add 15 gpd per employee

[21] Add for Food Service (e.g. 24-hour restaurant; refer to Food Service Operations Table)

Hospital	Per Bed[20,21]	175
	Per Outpatient	30
Church	Per Seat[20]	3
Church Hall/Fire Hall	Per Seat[21]	10
Library/ Museum	Per Patron[20,21]	5
Public Park	Per Person (toilet only)	5
Prison / Jail	Per Inmate[20,21]	150
School – Day	Per Student	10
- or -	Elem./ Jr. High / Sr. High	7 / 9 / 12
- and -	Add for meals / showers	5 / 5
School Boarding	Per Student[20,21]	75

Commercial

Type of Use	*Unit*	*Gallons per Day*
Airport/Bus/Rail Terminal	Per Passenger[22] Per Toilet	5 400
Barber Shop / Beauty Salon	Per Station without and with hair care sink	50/ 200
Bowling Alley	Per Lane [22,23]	75
Bed & Breakfast	Per Room (see note under Residential)	110/130/150
Casino	Per Employee/shift plus Per Sq. Ft. for non-lodging customer use	15 0.3
Country Clubs & Golf Courses	Per Round of Golf [21,22] (add for bar, banquet, shower or pool facilities and golf tournaments)	20
Concert Hall / Arena / Assembly Hall / Theater / Stadium / Skating Rink	Per Seat [21,22]	5

[22] Add 15 gpd per employee/shift

[23] Add for Food Service (e.g. 24 hour restaurant; refer to Food Service Operations Table)

Day Care	Per Child [21]	20
Doctors Office	Per Doctor	250
Dog / Pet Grooming	Per Station	500
Also see Kennel and Veterinary Office below.		
Dentist	Per Chair[24]	250
Drive-In Theater	Per Car Space [25]	5
Factory / Distribution Warehouse	Per Employee/shift; add for showers	15 10
Fairgrounds	Per Visitor [25]	5
Health Club	Per Patron	20
Highway Rest Area	Per Traveler[25] Per Dump Station Vehicle	5 7
Hotel	Per Sleeping Unit [25] add for banquet hall, night club, pool/spa, theatre, etc.	110/130/150
Kennel	Per Kennel/Run/Cage	50
Laundromat	Per Machine	580
Marina	Per Slip [25] with shore side restroom facilities including shower; add per slip for dump station	20 7
Migrant Worker Housing	Per Person	50
Motel	Per Sleeping Unit; add for in-room kitchen; add for in-room jacuzzi/spa	110/130/150 10 20
Office Building	Per Employee[25]; add for showers	15 5
Service station/Convenience store	Per Toilet[25]	400

[24] Dental offices must recycle mercury amalgam instead of washing it down the drain. NYSDEC's website has guidance referencing the 2002 law.

[25] Add for Food Service (e.g. 24-hour restaurant; refer to Food Service Operations Table)

Shopping Center / Grocery Store / Department Store	Per Sq. Ft.[25,26]; add for deli, bakery, butcher	0.1
Swimming Pool / Bath House	Per Swimmer	10
Veterinary Office	Per Veterinarian	200

Food Service Operations[27]

Type of Use	*Unit*	*Gallons per Day*
Ordinary Restaurant	Per Seat	35
24-Hour Restaurant	Per Seat (for cafeterias: pro rate flow in proportion to the hours)	50
Fast Food Restaurant	Per Seat	25
	Per Drive-Up Window	500
Lounge, Bar	Per Seat	20
Drive-In	Per Car Space	50
Banquet Hall	Per Seat	10
Restaurant along Freeway	Per Seat	75

B.6.c Infiltration, Inflow, Non-Sanitary and Prohibited Flows

Cooling water, roof drains, footing, sump and basement floor drains should not be discharged to the treatment system. Clean water from ice machines, water cooled refrigerators or coolers should also be excluded. Undetected leaks from plumbing fixtures, typically toilets and faucets, can waste significant amounts of water and subsequently increase the volume of wastewater to be treated. Simple repairs and routine operation and maintenance of plumbing fixtures can save water and increase the efficiency of wastewater treatment system.

Similarly, leaking sewer joints, pipe tank seals, tank riser seals, cracks in treatment tanks and manhole

[26] Add 15 gpd per employee/shift

[27] Garbage grinder use should be evaluated in the design phase of the project and accounted for in tank sizing per Section D.6 Septic Tanks.

APPENDIX #3

HYDROLOGIC AND HYDRAULIC ANALYSIS

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

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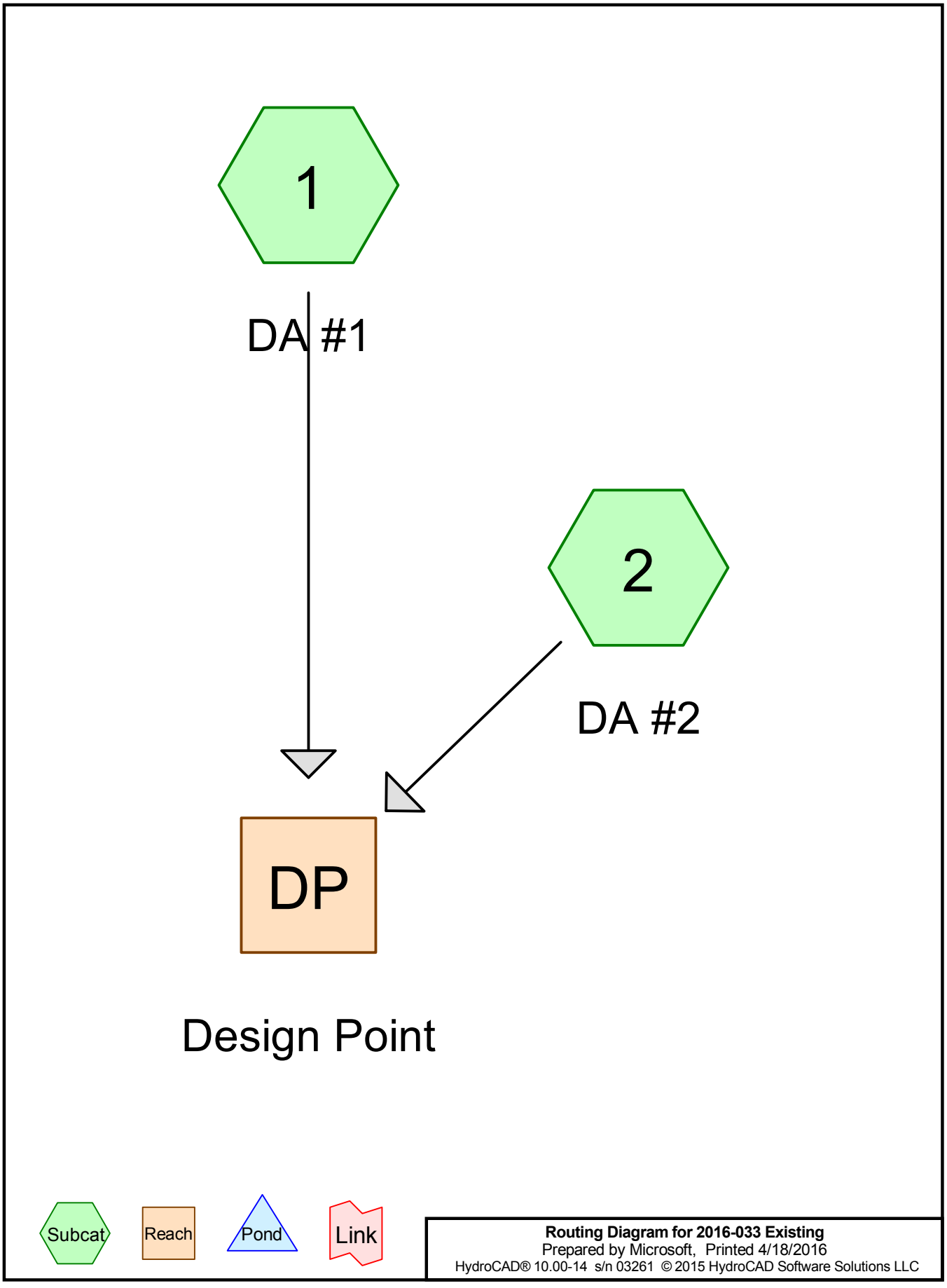


Routing Diagram for 2016-033 Existing
Prepared by Microsoft, Printed 4/18/2016

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.960	30	Meadow, non-grazed, HSG A (1, 2)
0.270	71	Meadow, non-grazed, HSG C (2)
2.630	98	Paved parking, HSG A (1, 2)
8.860	**51**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
8.590	HSG A	1, 2
0.000	HSG B	
0.270	HSG C	2
0.000	HSG D	
0.000	Other	
8.860		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
5.960	0.000	0.270	0.000	0.000	6.230	Meadow, non-grazed	1, 2
2.630	0.000	0.000	0.000	0.000	2.630	Paved parking	1, 2
8.590	**0.000**	**0.270**	**0.000**	**0.000**	**8.860**	**TOTAL AREA**	

Time span=0.10-20.00 hrs, dt=0.05 hrs, 399 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: DA #1 Runoff Area=6.690 ac 35.43% Impervious Runoff Depth>0.00"
Flow Length=450' Tc=36.3 min CN=54 Runoff=0.01 cfs 0.003 af

Subcatchment 2: DA #2 Runoff Area=2.170 ac 11.98% Impervious Runoff Depth=0.00"
Flow Length=238' Tc=42.7 min CN=43 Runoff=0.00 cfs 0.000 af

Reach DP: Design Point Inflow=0.01 cfs 0.003 af
Outflow=0.01 cfs 0.003 af

Total Runoff Area = 8.860 ac Runoff Volume = 0.003 af Average Runoff Depth = 0.00"
70.32% Pervious = 6.230 ac 29.68% Impervious = 2.630 ac

Summary for Subcatchment 1: DA #1

[73] Warning: Peak may fall outside time span

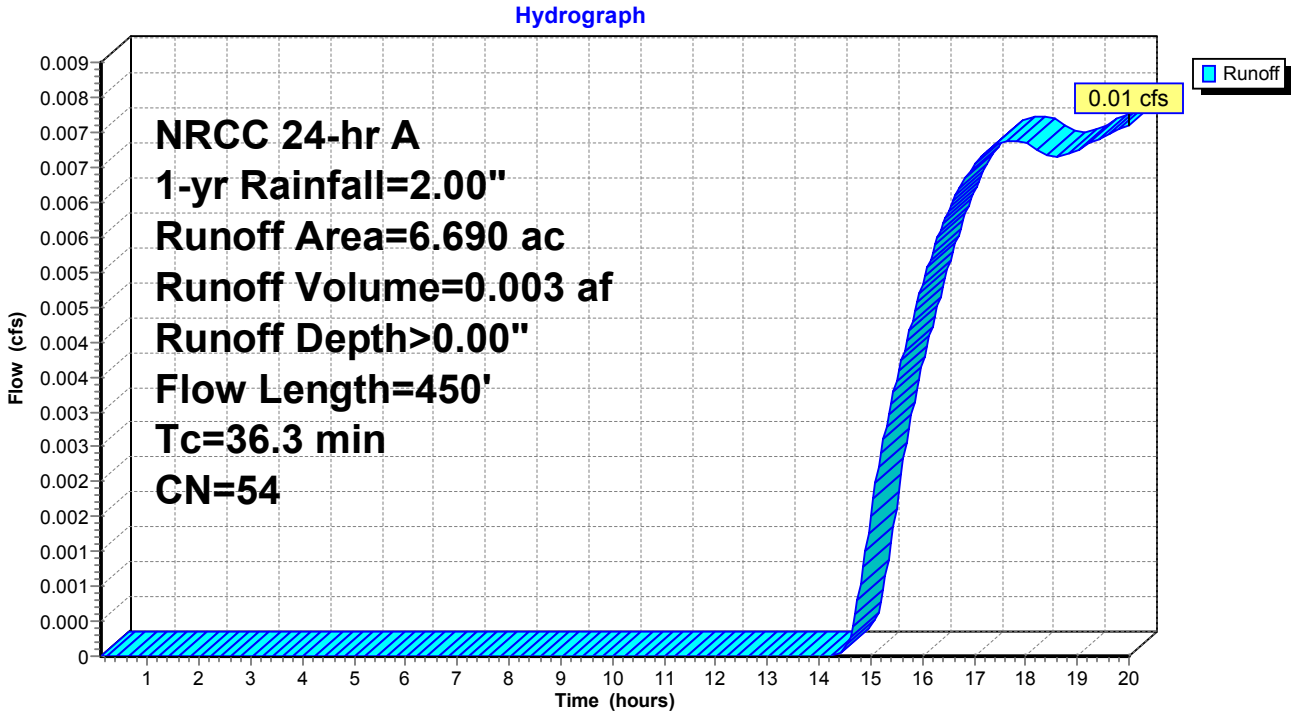
Runoff = 0.01 cfs @ 20.00 hrs, Volume= 0.003 af, Depth> 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=2.00"

Area (ac)	CN	Description
4.320	30	Meadow, non-grazed, HSG A
2.370	98	Paved parking, HSG A
6.690	54	Weighted Average
4.320		64.57% Pervious Area
2.370		35.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0150	0.06		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
7.5	350	0.0125	0.78		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
36.3	450	Total			

Subcatchment 1: DA #1



Summary for Subcatchment 2: DA #2

[45] Hint: Runoff=Zero

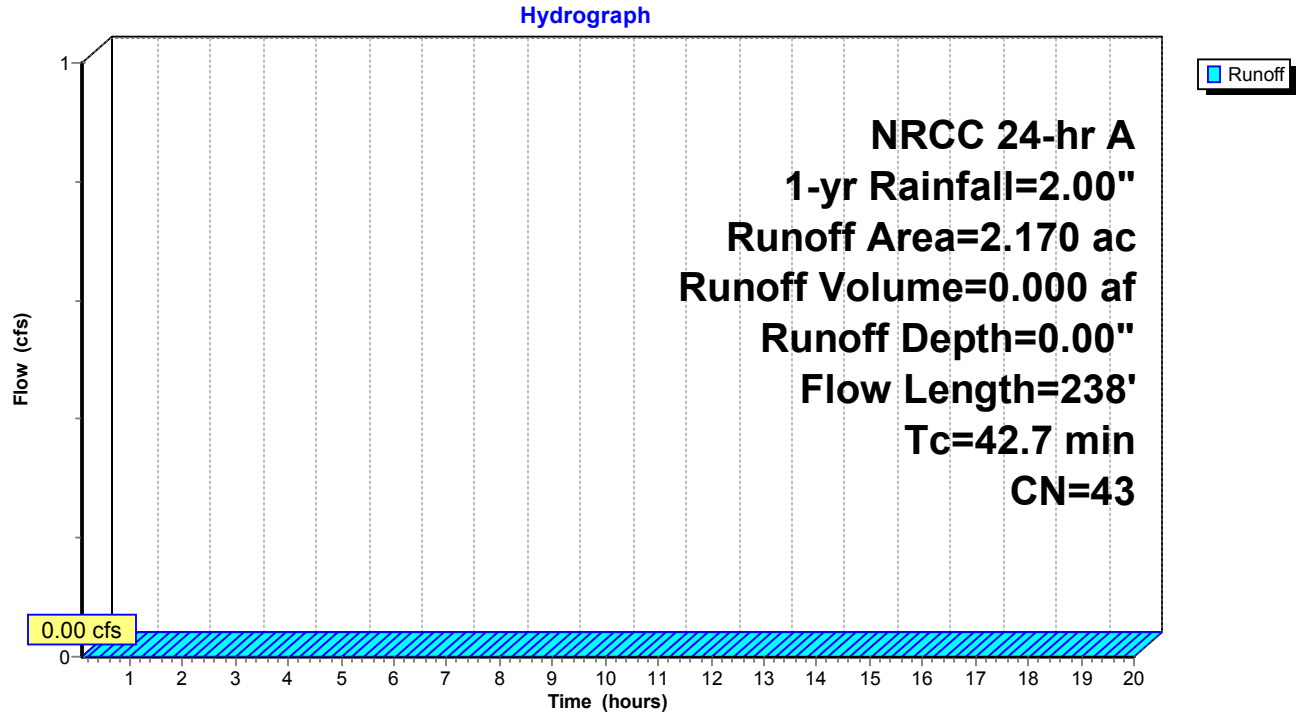
Runoff = 0.00 cfs @ 0.10 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=2.00"

Area (ac)	CN	Description
1.640	30	Meadow, non-grazed, HSG A
0.260	98	Paved parking, HSG A
0.270	71	Meadow, non-grazed, HSG C
2.170	43	Weighted Average
1.910		88.02% Pervious Area
0.260		11.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
40.2	100	0.0065	0.04		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
2.5	138	0.0170	0.91		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
42.7	238	Total			

Subcatchment 2: DA #2



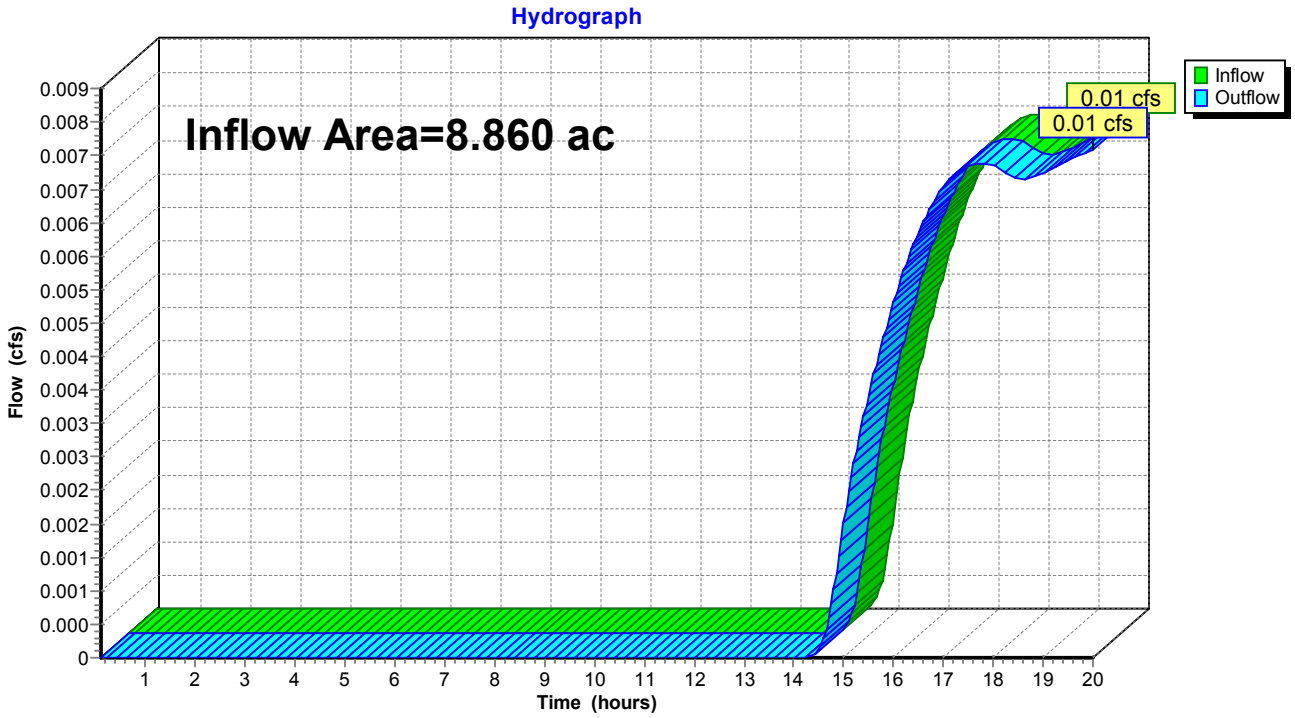
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8.860 ac, 29.68% Impervious, Inflow Depth > 0.00" for 1-yr event
Inflow = 0.01 cfs @ 20.00 hrs, Volume= 0.003 af
Outflow = 0.01 cfs @ 20.00 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs

Reach DP: Design Point



Time span=0.10-20.00 hrs, dt=0.05 hrs, 399 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: DA #1 Runoff Area=6.690 ac 35.43% Impervious Runoff Depth>0.22"
Flow Length=450' Tc=36.3 min CN=54 Runoff=0.61 cfs 0.121 af

Subcatchment 2: DA #2 Runoff Area=2.170 ac 11.98% Impervious Runoff Depth>0.02"
Flow Length=238' Tc=42.7 min CN=43 Runoff=0.01 cfs 0.004 af

Reach DP: Design Point Inflow=0.61 cfs 0.125 af
Outflow=0.61 cfs 0.125 af

Total Runoff Area = 8.860 ac Runoff Volume = 0.125 af Average Runoff Depth = 0.17"
70.32% Pervious = 6.230 ac 29.68% Impervious = 2.630 ac

Summary for Subcatchment 1: DA #1

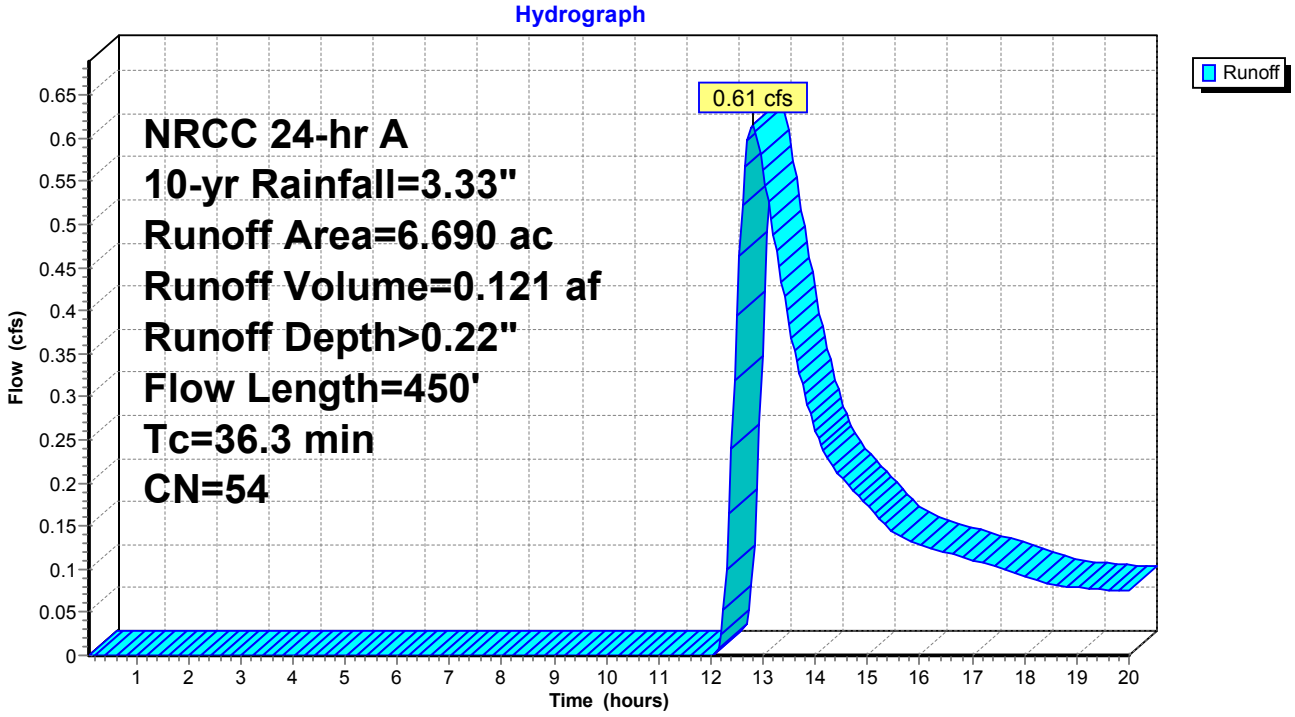
Runoff = 0.61 cfs @ 12.79 hrs, Volume= 0.121 af, Depth> 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.33"

Area (ac)	CN	Description
4.320	30	Meadow, non-grazed, HSG A
2.370	98	Paved parking, HSG A
6.690	54	Weighted Average
4.320		64.57% Pervious Area
2.370		35.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0150	0.06		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
7.5	350	0.0125	0.78		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
36.3	450	Total			

Subcatchment 1: DA #1



Summary for Subcatchment 2: DA #2

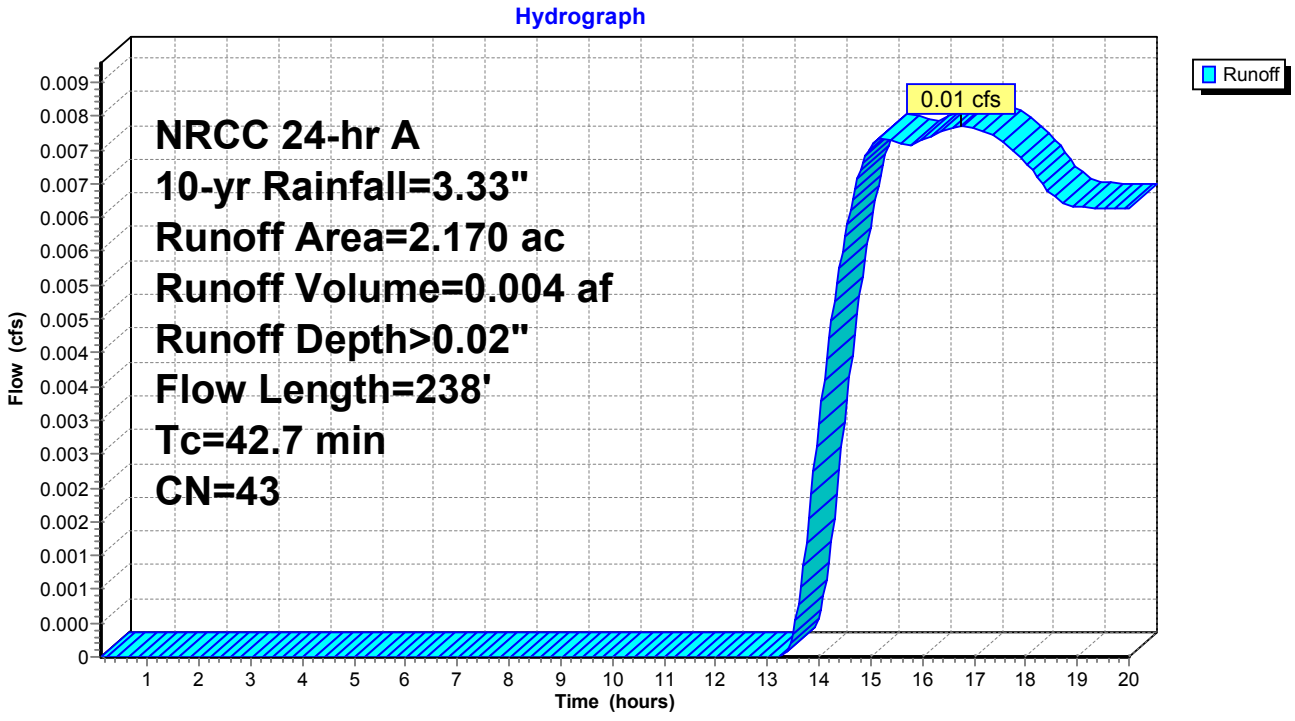
Runoff = 0.01 cfs @ 16.76 hrs, Volume= 0.004 af, Depth> 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.33"

Area (ac)	CN	Description
1.640	30	Meadow, non-grazed, HSG A
0.260	98	Paved parking, HSG A
0.270	71	Meadow, non-grazed, HSG C
2.170	43	Weighted Average
1.910		88.02% Pervious Area
0.260		11.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
40.2	100	0.0065	0.04		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
2.5	138	0.0170	0.91		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
42.7	238	Total			

Subcatchment 2: DA #2



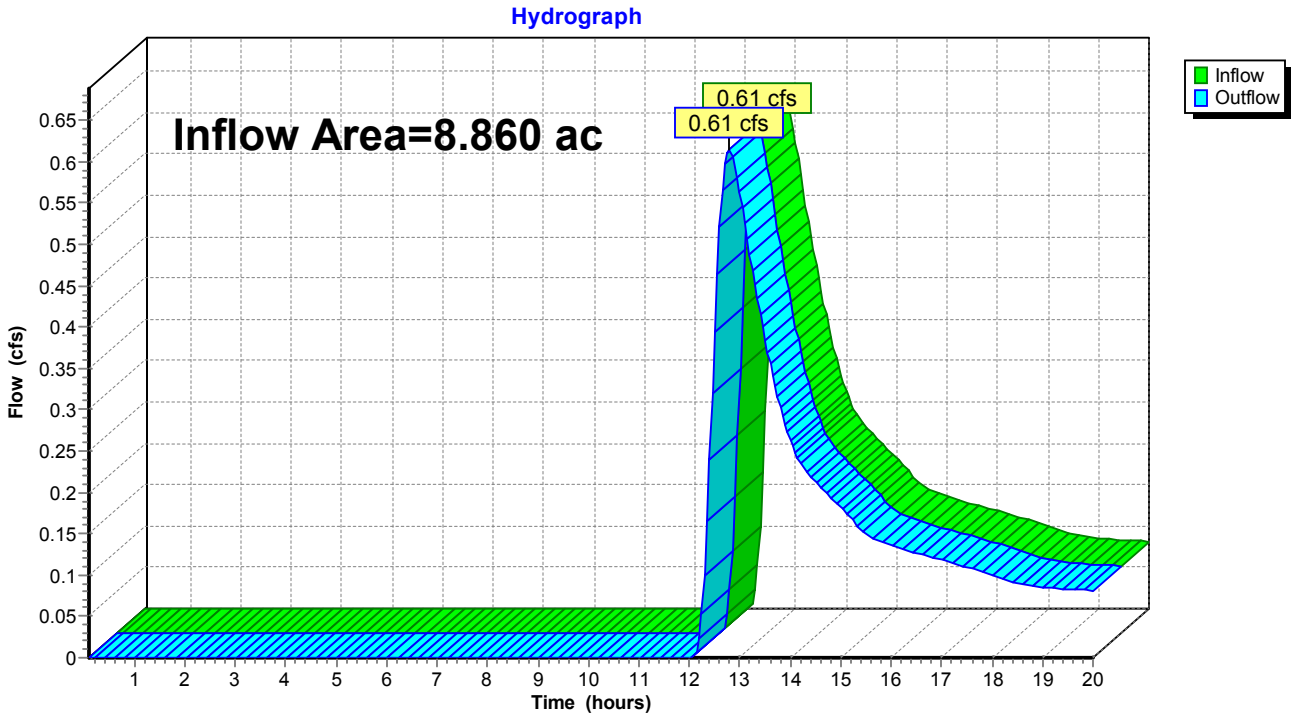
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8.860 ac, 29.68% Impervious, Inflow Depth > 0.17" for 10-yr event
Inflow = 0.61 cfs @ 12.79 hrs, Volume= 0.125 af
Outflow = 0.61 cfs @ 12.79 hrs, Volume= 0.125 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs

Reach DP: Design Point



Time span=0.10-20.00 hrs, dt=0.05 hrs, 399 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: DA #1 Runoff Area=6.690 ac 35.43% Impervious Runoff Depth>1.06"
Flow Length=450' Tc=36.3 min CN=54 Runoff=4.79 cfs 0.592 af

Subcatchment 2: DA #2 Runoff Area=2.170 ac 11.98% Impervious Runoff Depth>0.44"
Flow Length=238' Tc=42.7 min CN=43 Runoff=0.42 cfs 0.079 af

Reach DP: Design Point Inflow=5.10 cfs 0.671 af
Outflow=5.10 cfs 0.671 af

Total Runoff Area = 8.860 ac Runoff Volume = 0.671 af Average Runoff Depth = 0.91"
70.32% Pervious = 6.230 ac 29.68% Impervious = 2.630 ac

Summary for Subcatchment 1: DA #1

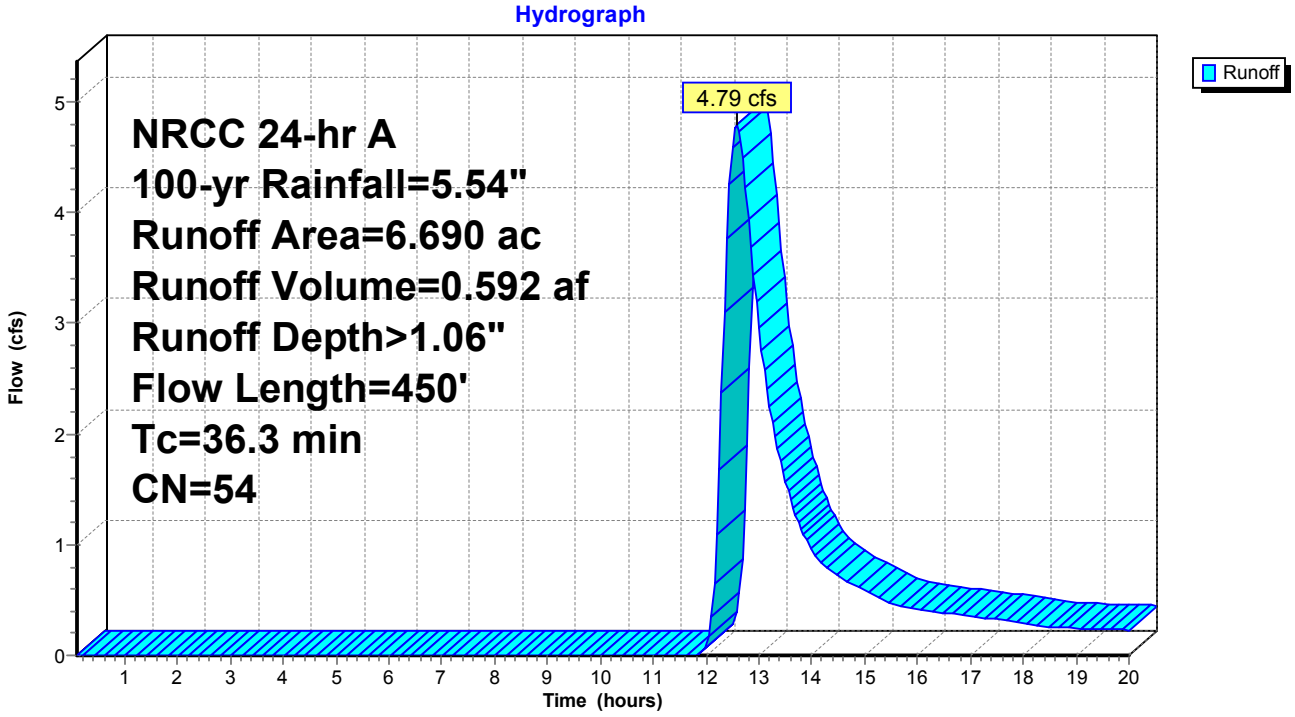
Runoff = 4.79 cfs @ 12.58 hrs, Volume= 0.592 af, Depth> 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=5.54"

Area (ac)	CN	Description
4.320	30	Meadow, non-grazed, HSG A
2.370	98	Paved parking, HSG A
6.690	54	Weighted Average
4.320		64.57% Pervious Area
2.370		35.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0150	0.06		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
7.5	350	0.0125	0.78		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
36.3	450	Total			

Subcatchment 1: DA #1



Summary for Subcatchment 2: DA #2

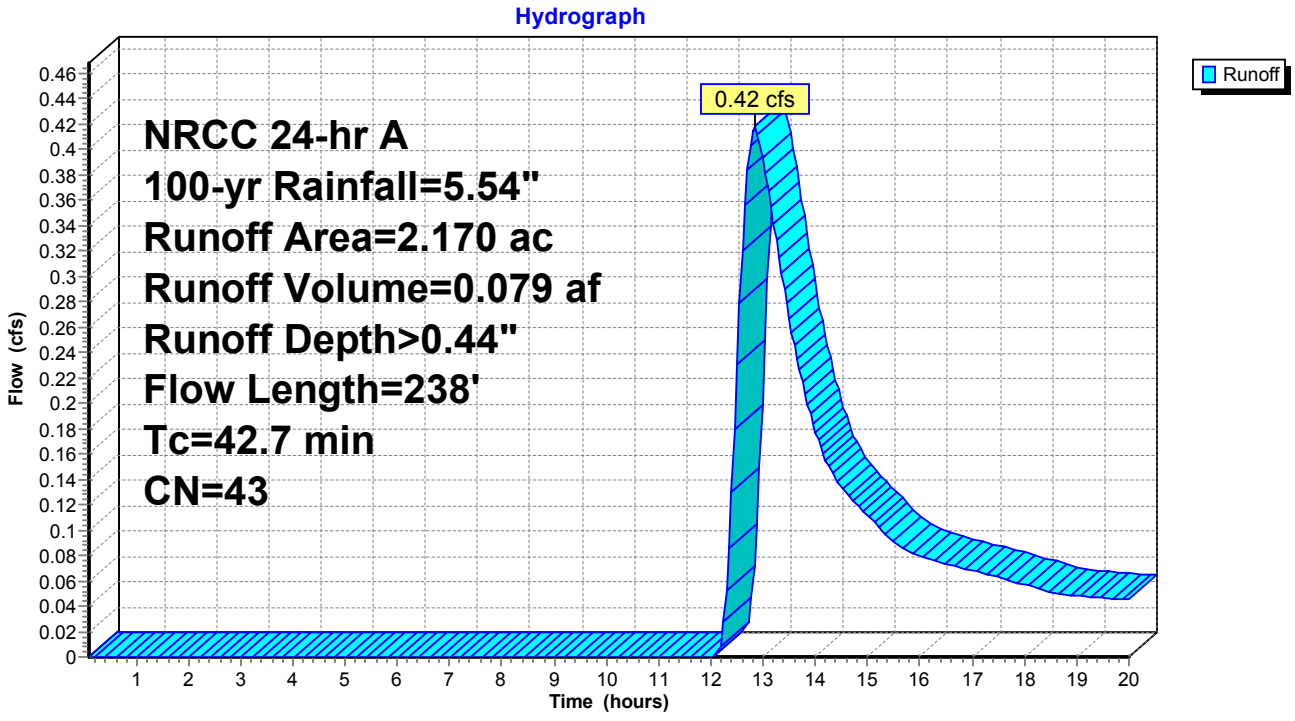
Runoff = 0.42 cfs @ 12.84 hrs, Volume= 0.079 af, Depth> 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=5.54"

Area (ac)	CN	Description
1.640	30	Meadow, non-grazed, HSG A
0.260	98	Paved parking, HSG A
0.270	71	Meadow, non-grazed, HSG C
2.170	43	Weighted Average
1.910		88.02% Pervious Area
0.260		11.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
40.2	100	0.0065	0.04		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
2.5	138	0.0170	0.91		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
42.7	238	Total			

Subcatchment 2: DA #2



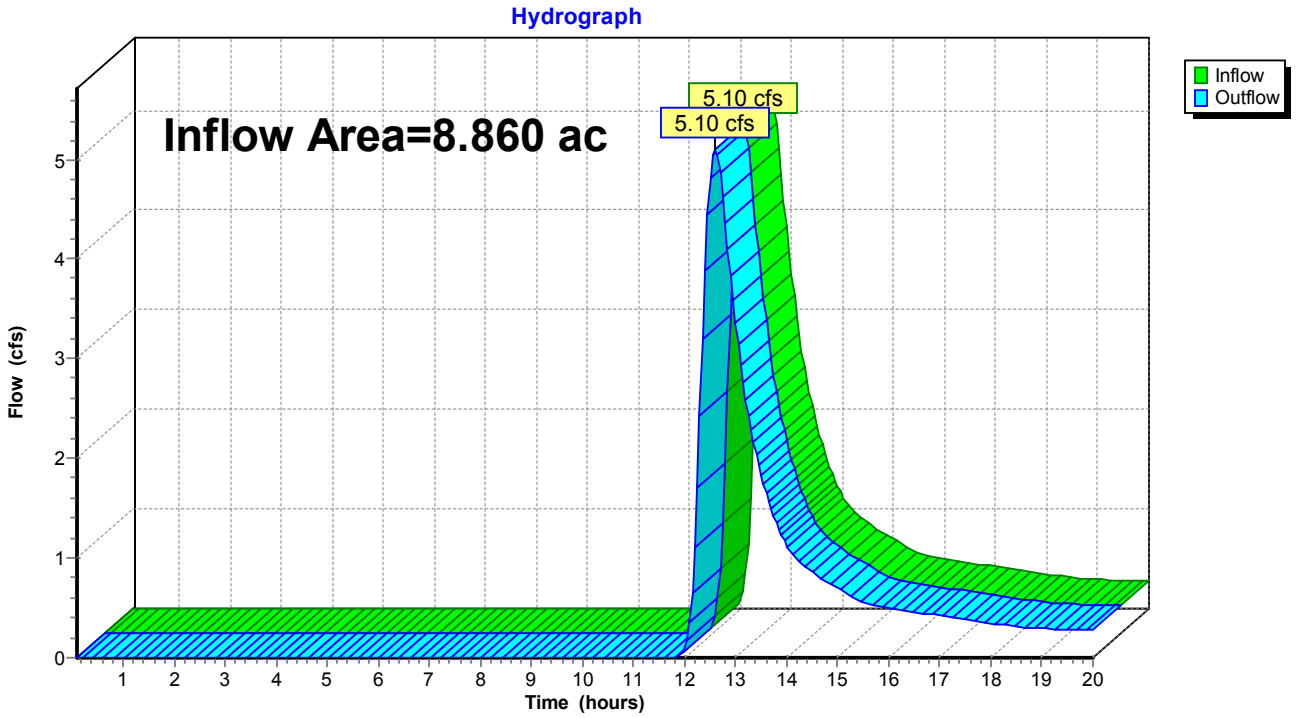
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

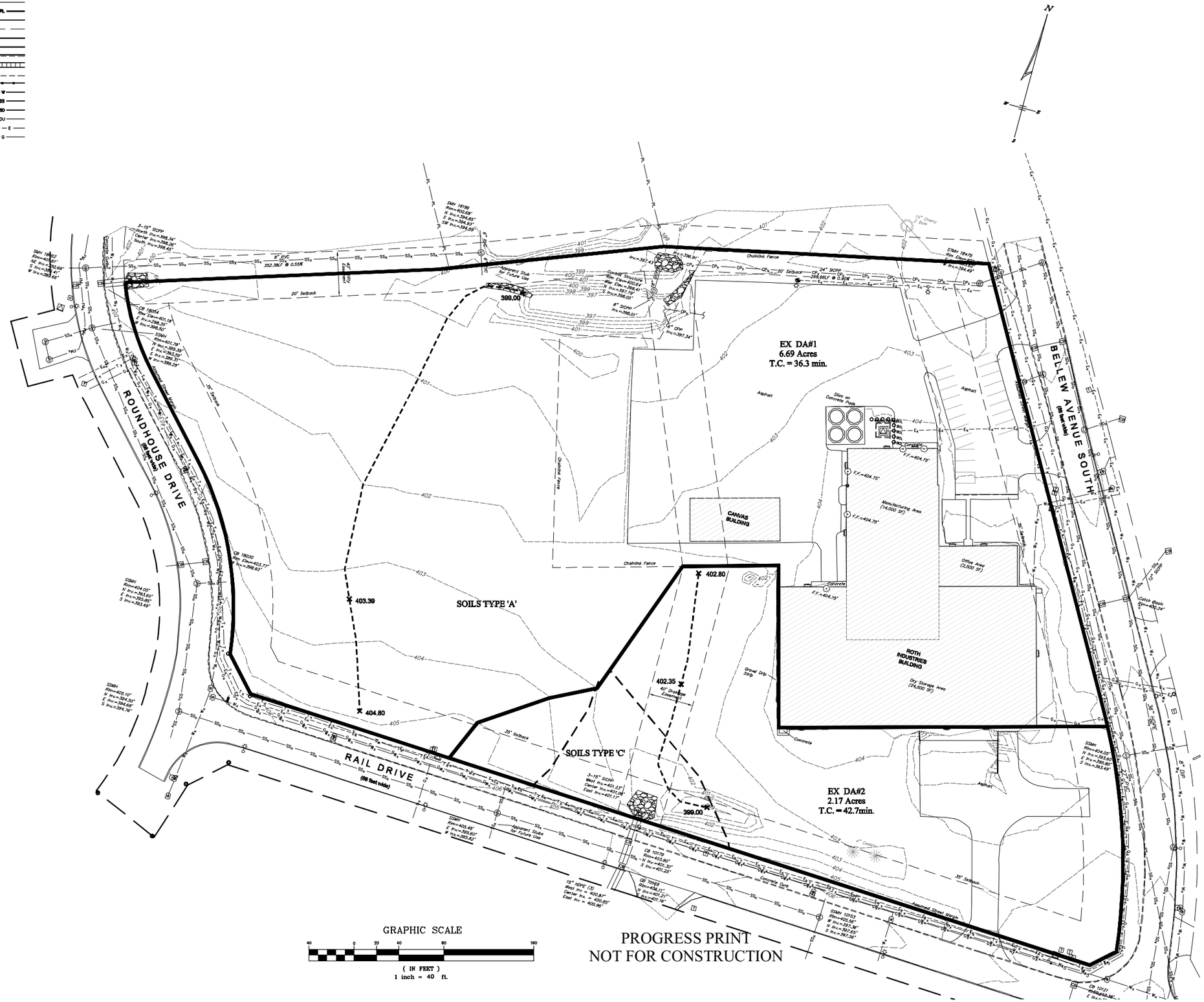
Inflow Area = 8.860 ac, 29.68% Impervious, Inflow Depth > 0.91" for 100-yr event
Inflow = 5.10 cfs @ 12.60 hrs, Volume= 0.671 af
Outflow = 5.10 cfs @ 12.60 hrs, Volume= 0.671 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs

Reach DP: Design Point



LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE		
WATERLINE		W W
SANITARY SEWER	SS SS	SS SS
STORM SEWER	SD SD	SD SD
OVERHEAD UTILITIES	OU OU	OU OU
UNDERGROUND ELECTRIC	E E	E E
GAS	G G	G G
FIRE HYDRANT		
WATER VALVE	W	
SANITARY MANHOLE	S	
STORM MANHOLE	D	D
CATCH BASIN	CB CB	S CB
UTILITY POLE AND GUY		
LIGHT POLE		



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ADDITION FOR ROTH INDUSTRIES AND ROTH GLOBAL PLASTICS

268 BELLEW AVE SOUTH
WATERTOWN, NEW YORK 13601
JEFFERSON COUNTY

PROJECT NO:	2018-033
SCALE:	1"=40'
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	

EXISTING DRAINAGE AREA MAP

EX-1

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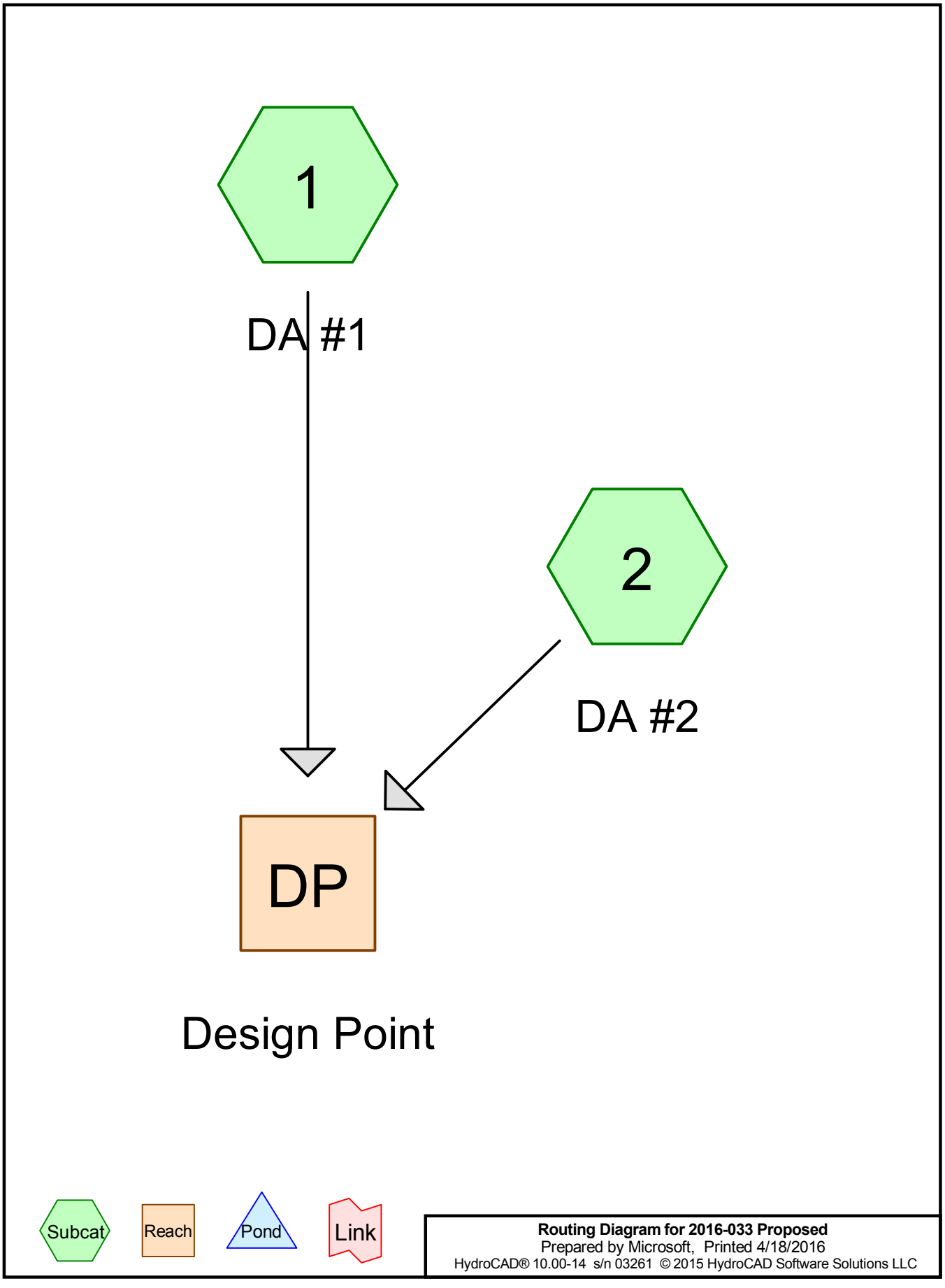


Routing Diagram for 2016-033 Proposed
Prepared by Microsoft, Printed 4/18/2016

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.120	30	Meadow, non-grazed, HSG A (1, 2)
0.250	71	Meadow, non-grazed, HSG C (2)
4.470	98	Paved parking, HSG A (1, 2)
0.020	98	Paved parking, HSG C (2)
8.860	**66**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
8.590	HSG A	1, 2
0.000	HSG B	
0.270	HSG C	2
0.000	HSG D	
0.000	Other	
8.860		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
4.120	0.000	0.250	0.000	0.000	4.370	Meadow, non-grazed	1, 2
4.470	0.000	0.020	0.000	0.000	4.490	Paved parking	1, 2
8.590	**0.000**	**0.270**	**0.000**	**0.000**	**8.860**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2	0.00	0.00	57.0	0.0183	0.010	6.0	0.0	0.0

Time span=0.10-20.00 hrs, dt=0.05 hrs, 399 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: DA #1 Runoff Area=6.700 ac 59.70% Impervious Runoff Depth>0.23"
Flow Length=474' Tc=37.0 min CN=71 Runoff=0.86 cfs 0.129 af

Subcatchment 2: DA #2 Runoff Area=2.160 ac 22.69% Impervious Runoff Depth=0.00"
Flow Length=157' Tc=27.6 min CN=50 Runoff=0.00 cfs 0.000 af

Reach DP: Design Point Inflow=0.86 cfs 0.129 af
Outflow=0.86 cfs 0.129 af

Total Runoff Area = 8.860 ac Runoff Volume = 0.129 af Average Runoff Depth = 0.17"
49.32% Pervious = 4.370 ac 50.68% Impervious = 4.490 ac

Summary for Subcatchment 1: DA #1

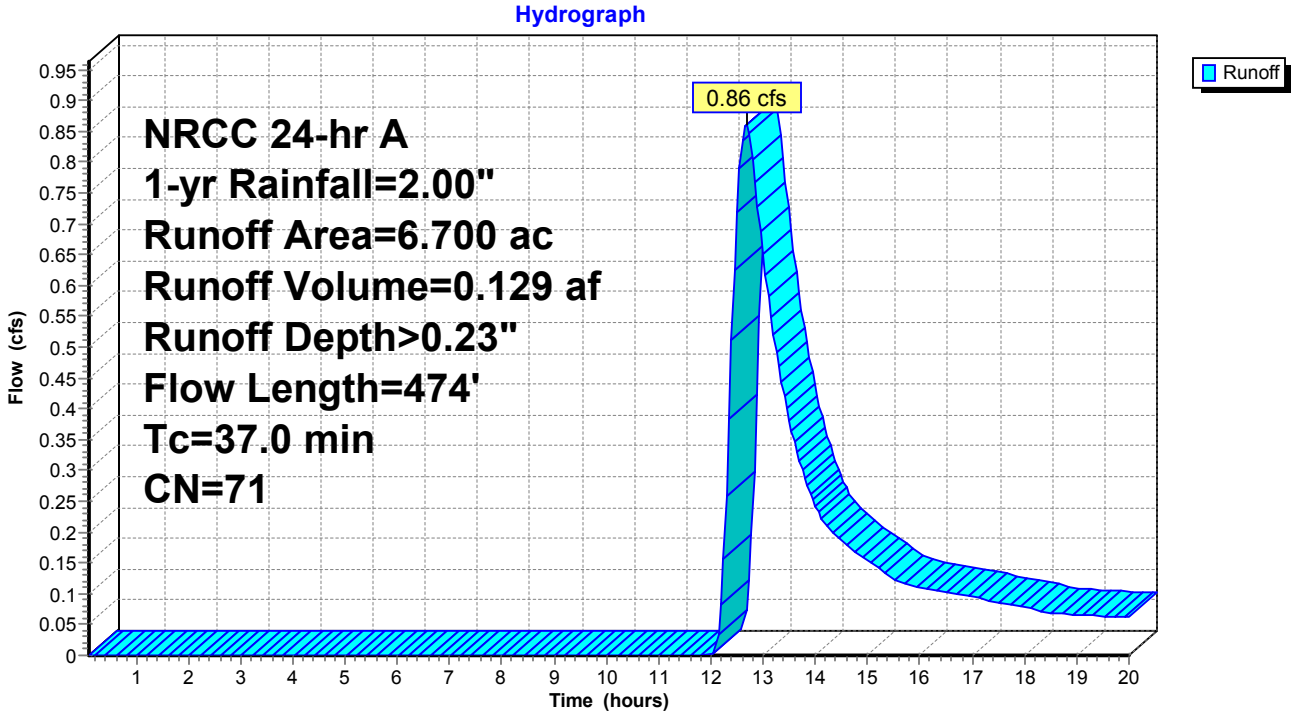
Runoff = 0.86 cfs @ 12.67 hrs, Volume= 0.129 af, Depth> 0.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=2.00"

Area (ac)	CN	Description
2.700	30	Meadow, non-grazed, HSG A
4.000	98	Paved parking, HSG A
6.700	71	Weighted Average
2.700		40.30% Pervious Area
4.000		59.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0150	0.06		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
8.2	374	0.0117	0.76		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
37.0	474	Total			

Subcatchment 1: DA #1



Summary for Subcatchment 2: DA #2

[45] Hint: Runoff=Zero

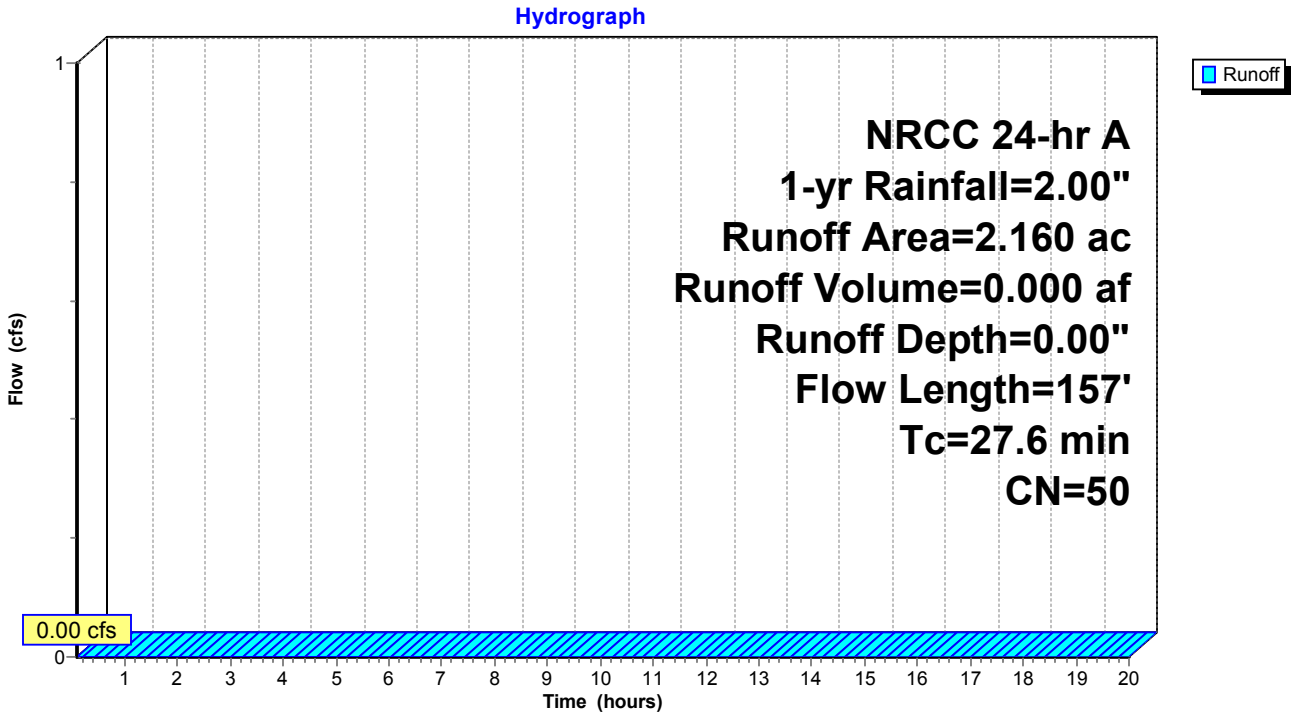
Runoff = 0.00 cfs @ 0.10 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=2.00"

Area (ac)	CN	Description
1.420	30	Meadow, non-grazed, HSG A
0.470	98	Paved parking, HSG A
0.250	71	Meadow, non-grazed, HSG C
0.020	98	Paved parking, HSG C
2.160	50	Weighted Average
1.670		77.31% Pervious Area
0.490		22.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.9	75	0.0100	0.05		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
0.5	25	0.0150	0.79		**Sheet Flow, Lawn to Trench Drain** Smooth surfaces n= 0.011 P2= 2.33"
0.2	57	0.0183	5.03	0.99	**Pipe Channel, Storm Sewer** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.010 PVC, smooth interior
27.6	157	Total			

Subcatchment 2: DA #2



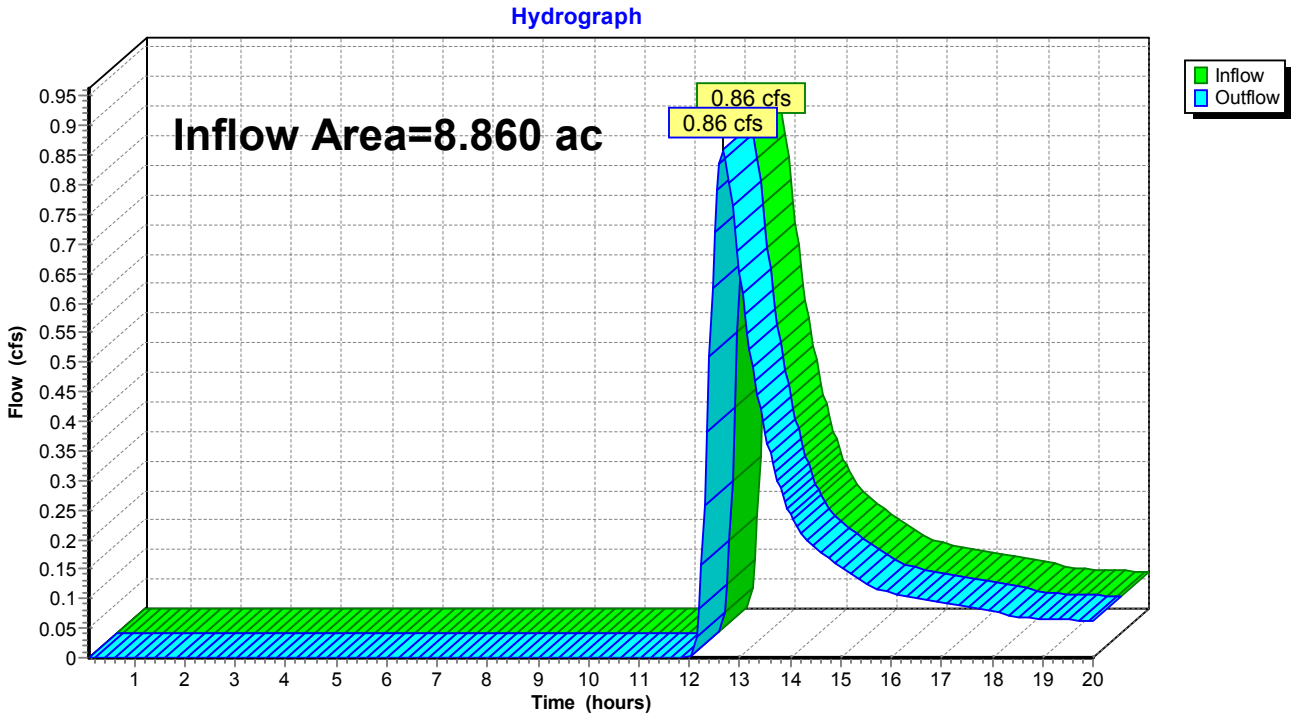
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8.860 ac, 50.68% Impervious, Inflow Depth > 0.17" for 1-yr event
Inflow = 0.86 cfs @ 12.67 hrs, Volume= 0.129 af
Outflow = 0.86 cfs @ 12.67 hrs, Volume= 0.129 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs

Reach DP: Design Point



Time span=0.10-20.00 hrs, dt=0.05 hrs, 399 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: DA #1 Runoff Area=6.700 ac 59.70% Impervious Runoff Depth>0.87"
Flow Length=474' Tc=37.0 min CN=71 Runoff=4.17 cfs 0.483 af

Subcatchment 2: DA #2 Runoff Area=2.160 ac 22.69% Impervious Runoff Depth>0.13"
Flow Length=157' Tc=27.6 min CN=50 Runoff=0.09 cfs 0.023 af

Reach DP: Design Point Inflow=4.23 cfs 0.506 af
Outflow=4.23 cfs 0.506 af

Total Runoff Area = 8.860 ac Runoff Volume = 0.506 af Average Runoff Depth = 0.68"
49.32% Pervious = 4.370 ac 50.68% Impervious = 4.490 ac

Summary for Subcatchment 1: DA #1

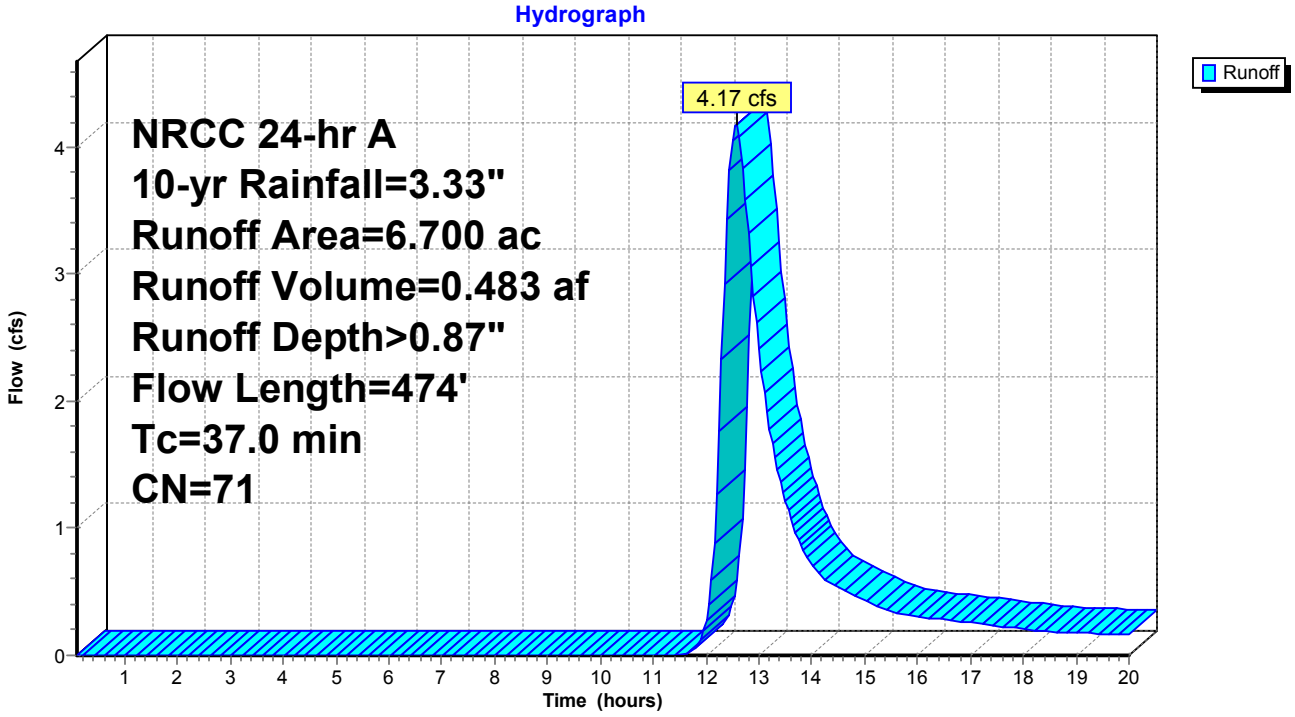
Runoff = 4.17 cfs @ 12.57 hrs, Volume= 0.483 af, Depth> 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.33"

Area (ac)	CN	Description
2.700	30	Meadow, non-grazed, HSG A
4.000	98	Paved parking, HSG A
6.700	71	Weighted Average
2.700		40.30% Pervious Area
4.000		59.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0150	0.06		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
8.2	374	0.0117	0.76		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
37.0	474	Total			

Subcatchment 1: DA #1



Summary for Subcatchment 2: DA #2

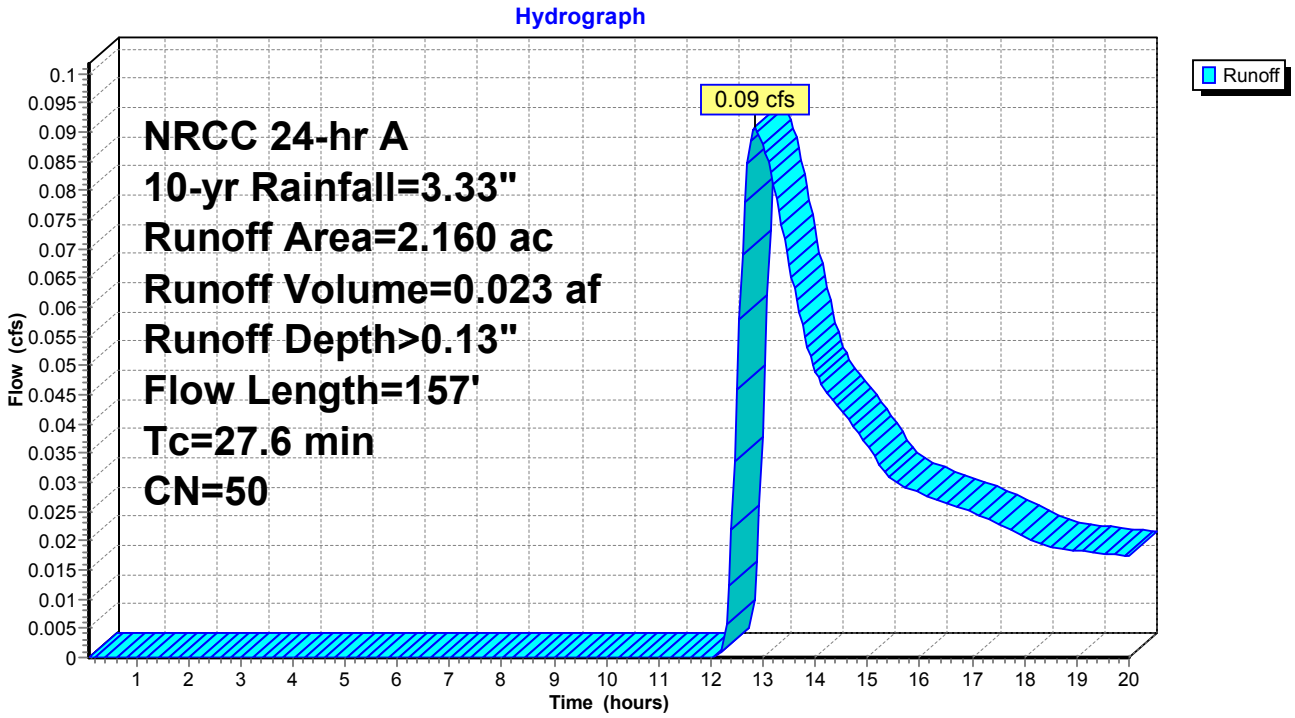
Runoff = 0.09 cfs @ 12.85 hrs, Volume= 0.023 af, Depth> 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.33"

Area (ac)	CN	Description
1.420	30	Meadow, non-grazed, HSG A
0.470	98	Paved parking, HSG A
0.250	71	Meadow, non-grazed, HSG C
0.020	98	Paved parking, HSG C
2.160	50	Weighted Average
1.670		77.31% Pervious Area
0.490		22.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.9	75	0.0100	0.05		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
0.5	25	0.0150	0.79		**Sheet Flow, Lawn to Trench Drain** Smooth surfaces n= 0.011 P2= 2.33"
0.2	57	0.0183	5.03	0.99	**Pipe Channel, Storm Sewer** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.010 PVC, smooth interior
27.6	157	Total			

Subcatchment 2: DA #2



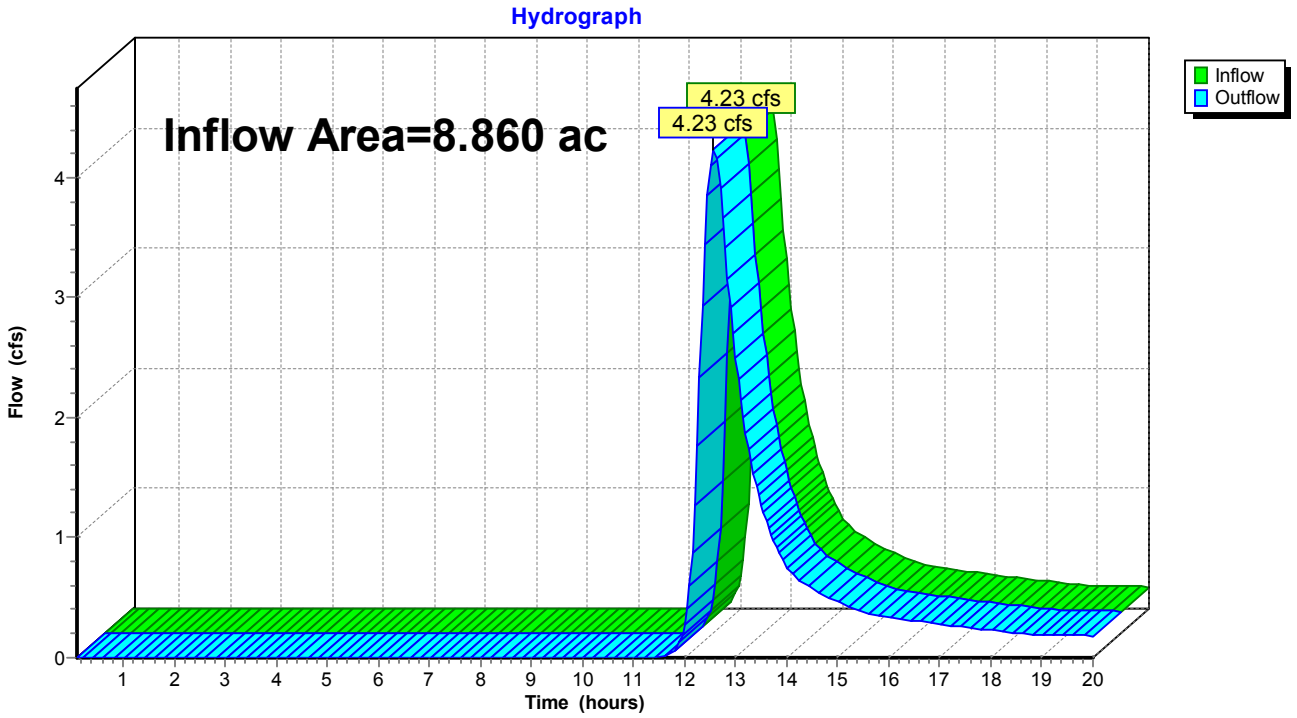
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8.860 ac, 50.68% Impervious, Inflow Depth > 0.68" for 10-yr event
Inflow = 4.23 cfs @ 12.57 hrs, Volume= 0.506 af
Outflow = 4.23 cfs @ 12.57 hrs, Volume= 0.506 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs

Reach DP: Design Point



Time span=0.10-20.00 hrs, dt=0.05 hrs, 399 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: DA #1 Runoff Area=6.700 ac 59.70% Impervious Runoff Depth>2.34"
Flow Length=474' Tc=37.0 min CN=71 Runoff=11.87 cfs 1.305 af

Subcatchment 2: DA #2 Runoff Area=2.160 ac 22.69% Impervious Runoff Depth>0.82"
Flow Length=157' Tc=27.6 min CN=50 Runoff=1.26 cfs 0.147 af

Reach DP: Design Point Inflow=13.10 cfs 1.452 af
Outflow=13.10 cfs 1.452 af

Total Runoff Area = 8.860 ac Runoff Volume = 1.452 af Average Runoff Depth = 1.97"
49.32% Pervious = 4.370 ac 50.68% Impervious = 4.490 ac

Summary for Subcatchment 1: DA #1

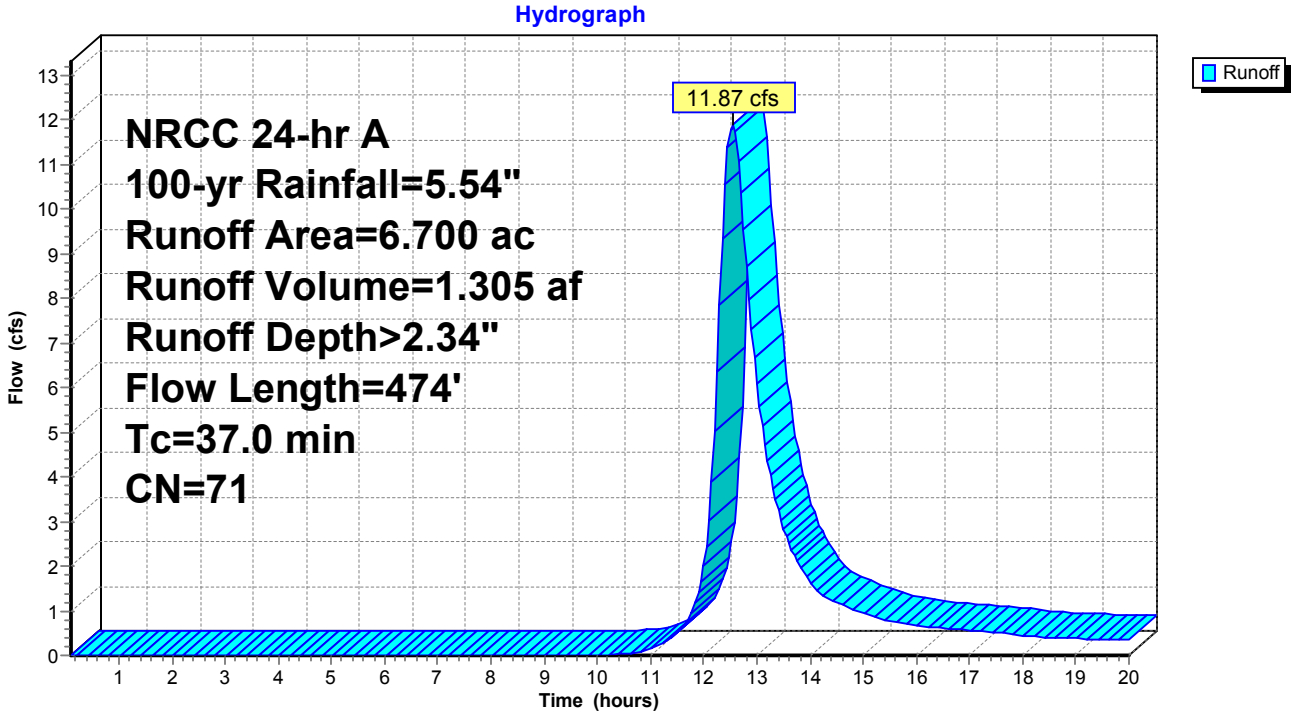
Runoff = 11.87 cfs @ 12.53 hrs, Volume= 1.305 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=5.54"

Area (ac)	CN	Description
2.700	30	Meadow, non-grazed, HSG A
4.000	98	Paved parking, HSG A
6.700	71	Weighted Average
2.700		40.30% Pervious Area
4.000		59.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0150	0.06		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
8.2	374	0.0117	0.76		**Shallow Concentrated Flow, Lawn** Short Grass Pasture Kv= 7.0 fps
37.0	474	Total			

Subcatchment 1: DA #1



Summary for Subcatchment 2: DA #2

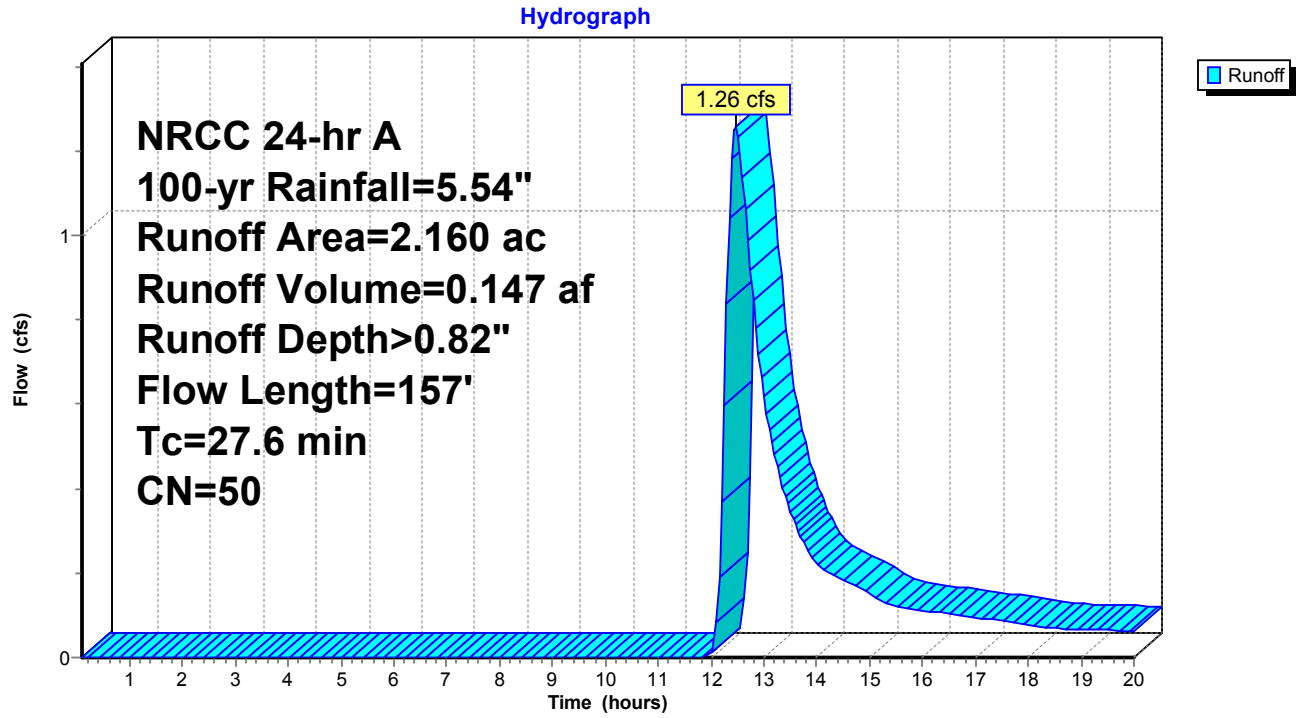
Runoff = 1.26 cfs @ 12.48 hrs, Volume= 0.147 af, Depth> 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=5.54"

Area (ac)	CN	Description
1.420	30	Meadow, non-grazed, HSG A
0.470	98	Paved parking, HSG A
0.250	71	Meadow, non-grazed, HSG C
0.020	98	Paved parking, HSG C
2.160	50	Weighted Average
1.670		77.31% Pervious Area
0.490		22.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.9	75	0.0100	0.05		**Sheet Flow, Lawn** Grass: Bermuda n= 0.410 P2= 2.33"
0.5	25	0.0150	0.79		**Sheet Flow, Lawn to Trench Drain** Smooth surfaces n= 0.011 P2= 2.33"
0.2	57	0.0183	5.03	0.99	**Pipe Channel, Storm Sewer** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.010 PVC, smooth interior
27.6	157	Total			

Subcatchment 2: DA #2



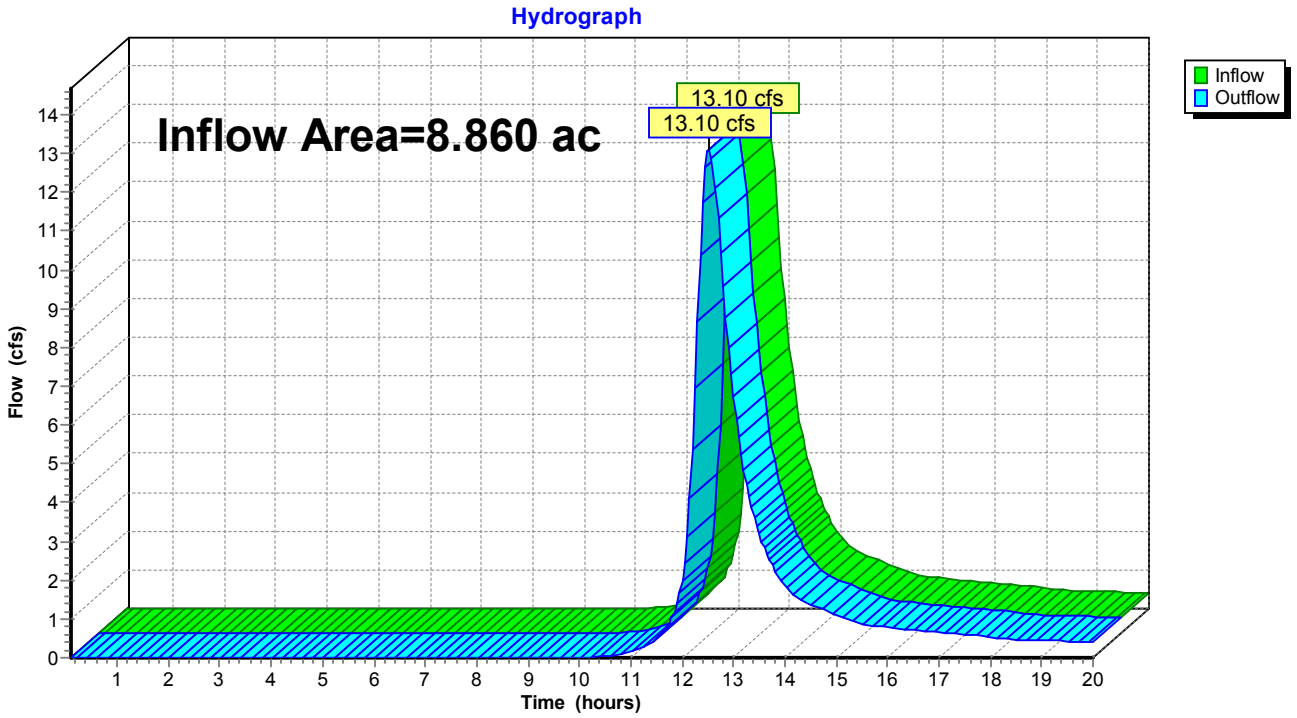
Summary for Reach DP: Design Point

[40] Hint: Not Described (Outflow=Inflow)

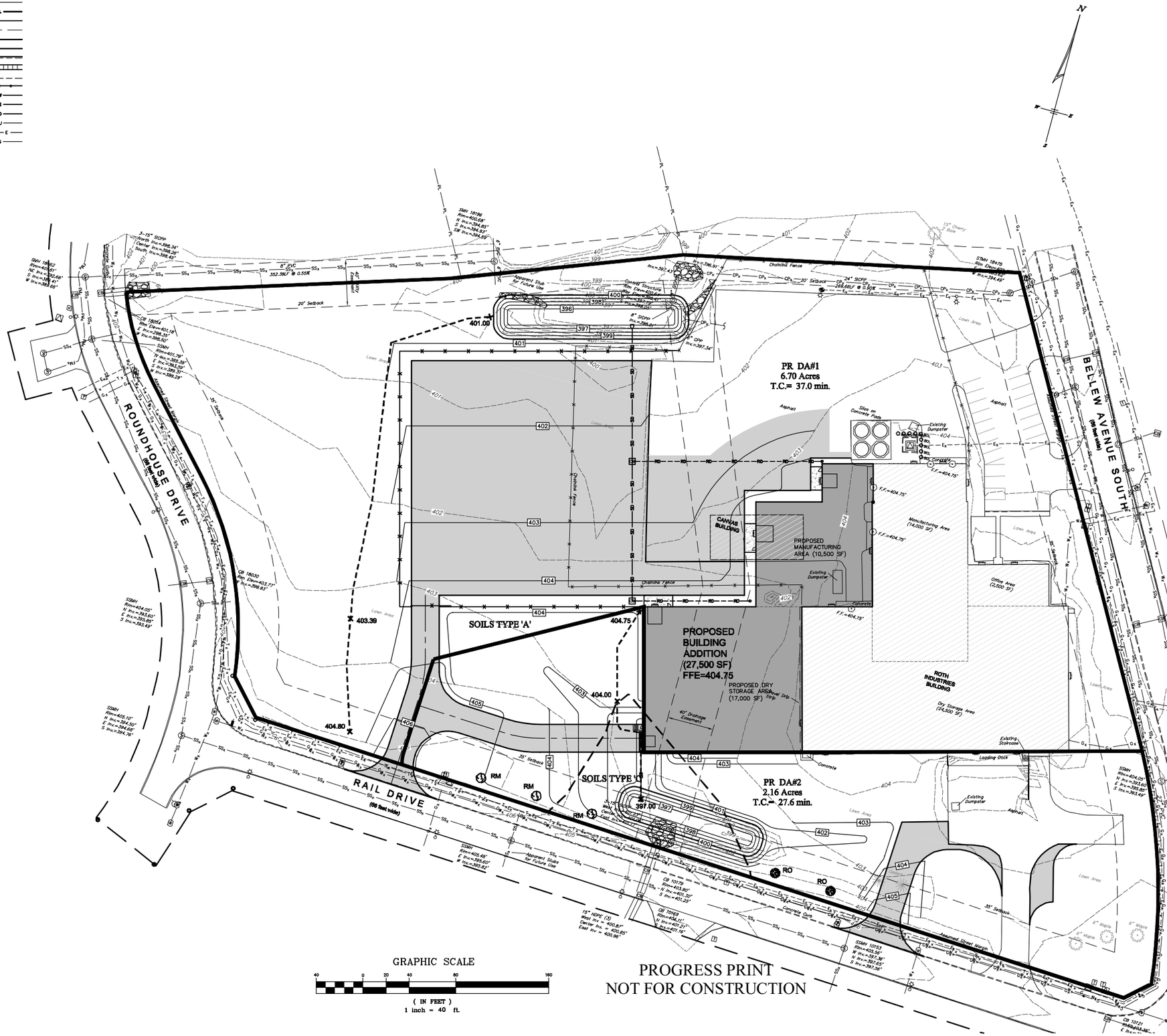
Inflow Area = 8.860 ac, 50.68% Impervious, Inflow Depth > 1.97" for 100-yr event
Inflow = 13.10 cfs @ 12.53 hrs, Volume= 1.452 af
Outflow = 13.10 cfs @ 12.53 hrs, Volume= 1.452 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.10-20.00 hrs, dt= 0.05 hrs

Reach DP: Design Point



LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE	o o o	
WATERLINE	W_x W_x	W W
SANITARY SEWER	SS_x SS_x	SS SS
STORM SEWER	SD_x SD_x	SD SD
OVERHEAD UTILITIES	OU_x OU_x	OU OU
UNDERGROUND ELECTRIC	E_x E_x	E E
GAS	G_x G_x	G G
FIRE HYDRANT		
WATER VALVE	W	
SANITARY MANHOLE	S	
STORM MANHOLE	D	D
CATCH BASIN	CB CB	S CB
UTILITY POLE AND GUY		
LIGHT POLE		



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 ft.

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ADDITION FOR ROTH INDUSTRIES AND ROTH GLOBAL PLASTICS

268 BELLEW AVE SOUTH
WATERTOWN, NEW YORK 13601
JEFFERSON COUNTY

PROJECT NO:	2018-033
SCALE:	1"=40'
DRAWN BY:	CWT
CHECKED BY:	MRN
ISSUE DATES:	

PROPOSED DRAINAGE AREA MAP

PR-1

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APPENDIX #4

PARKING AND TRAFFIC CALCULATIONS

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www.AubertineCurrier.com

CALCULATION SHEET

Project Number: 2016-033 Date: _____

Project Name: Roth Industries Page: _____ Of: _____

Location: 268 Bellew Ave. South Calc'd By: LWT

Parking Calculations

- Per City of Watertown Zoning, Section 310-47 & 310-48
  200 SF (1 space) per 1,000 SF of Floor Space for Light Industry
  5 Parking Spaces per 1,000 SF of Office Space
- Per Section 310-50, Areas Used for Boiler Room, Heating Facilities, Utility Facilities & Storage are not included in Floor Space Area

- Ex. Building → Office Space Floor Area = 2,500 SF ∴ 13 Spaces Required
  Manufacturing Area = 14,000 SF ∴ 14 Spaces Required
  Dry Storage Area = 24,500 SF ∴ 25 Spaces Required
- Pr. Building Addition → Manufacturing Area = 10,500 SF ∴ 11 Spaces Required
  Dry Storage Area = 17,000 SF ∴ 17 Spaces Required
- Office Use Requires 13 Parking Spaces
  Industrial Use Requires 67 Parking Spaces or 13,400 SF of Parking Area

* Ex. Parking Lot Contains 19 Parking Spaces > 13 Spaces Required for Office Use
  Ex. & Pr. Asphalt Storage/Parking Area Contains ≈100,000 SF of Parking Area, Much Greater than the Required 13,400 SF for Industrial Uses *

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Fax: (315) 782-1472
www.AubertineCurrier.com

CALCULATION SHEET

Project Number: 2016-033 Date: _____
Project Name: Roth Industries Page: _____ Of: _____
Location: 268 Bellew Ave South Calc'd By: UAT

Traffic Generation Calculations

- Trip Generation ITE 7th Edition

Land Use: 140 Manufacturing ~ Existing Building = 41,245 SF
Proposed Building = 26,800 SF
Total = 68,045 SF

- Weekday AM Peak Hour
Avg. Rate ~ 0.39 Trips per 1,000 SF of Floor Area
80% Entering, 20% Exiting

Existing → 41,245 SF / 1,000 SF × 0.39 = 16 Trips/Hr ~ 13 Entering, 3 Exiting
Proposed → 68,045 SF / 1,000 SF × 0.39 = 27 Trips/Hr ~ 22 Entering, 5 Exiting

- Weekday PM Peak Hour
Avg. Rate ~ 0.40 Trips per 1,000 SF of Floor Area
48% Entering, 52% Exiting

Existing → 41,245 SF / 1,000 SF × 0.40 = 17 Trips/Hr ~ 8 Entering, 9 Exiting
Proposed → 68,045 SF / 1,000 SF × 0.40 = 28 Trips/Hr ~ 13 Entering, 15 Exiting

- Saturday Peak Hour
Avg. Rate ~ 0.16 Trips per 1,000 SF of Floor Area
50% Entering, 50% Exiting

Existing → 41,245 SF / 1,000 SF × 0.16 = 7 Trips/Hr ~ 4 Entering, 3 Exiting
Proposed → 68,045 SF / 1,000 SF × 0.16 = 11 Trips/Hr ~ 6 Entering, 5 Exiting

Manufacturing
(140)

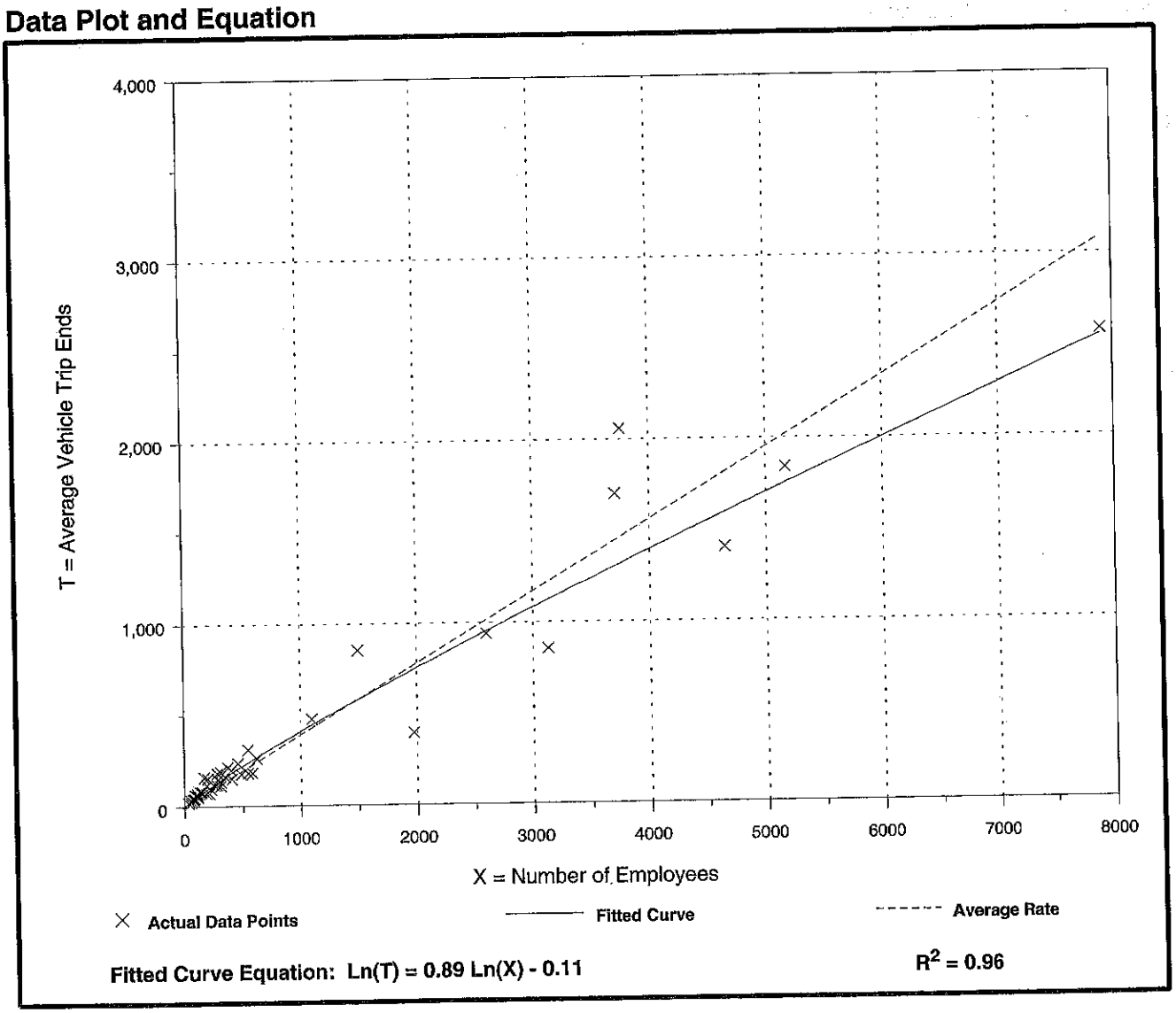
Average Vehicle Trip Ends vs: Employees
On a: Weekday,
A.M. Peak Hour of Generator

Number of Studies: 52
Avg. Number of Employees: 881
Directional Distribution: 80% entering, 20% exiting

Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.39	0.20 - 0.94	0.64

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.89 Ln(X) - 0.11

R^2 = 0.96

Manufacturing
(140)

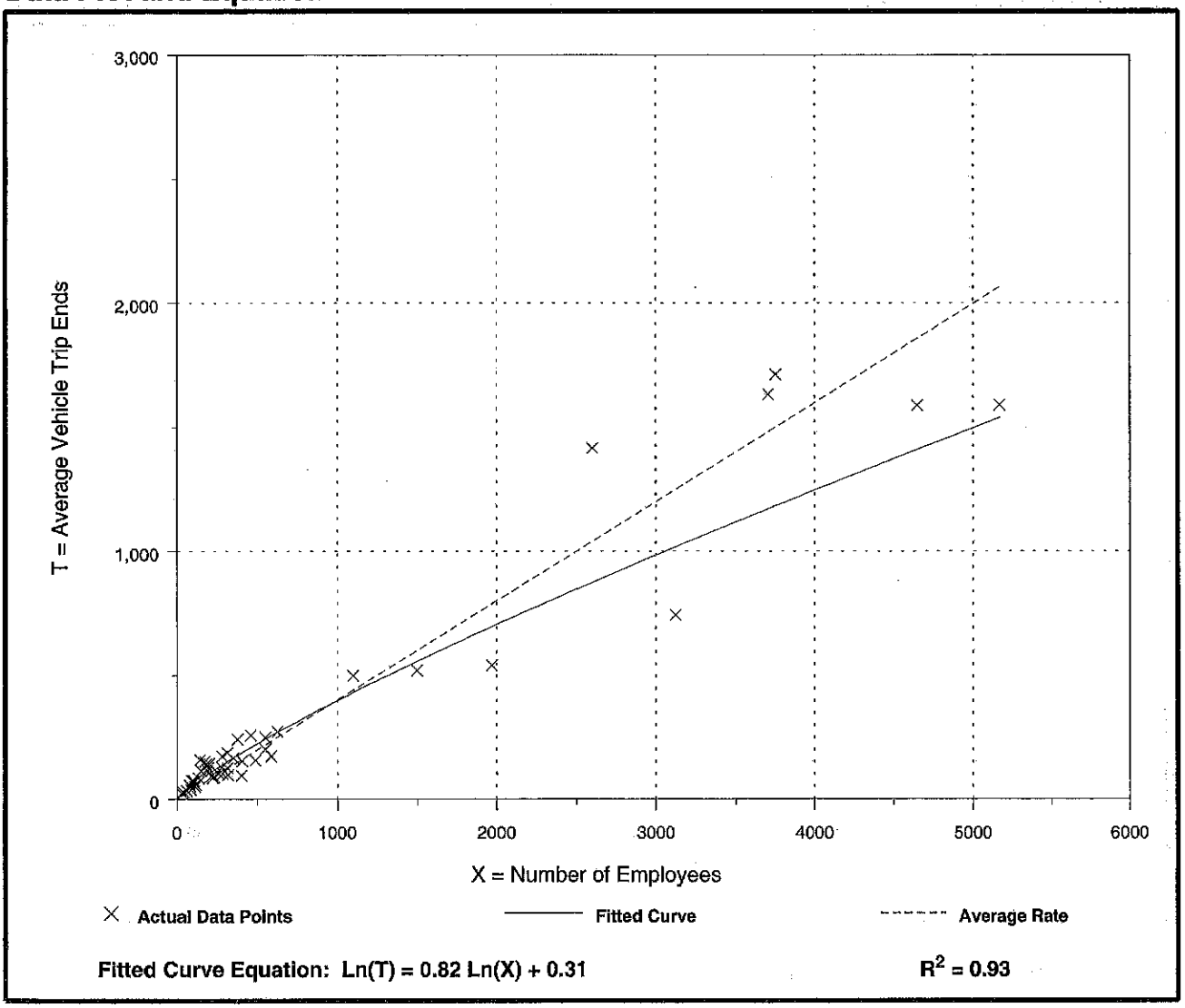
Average Vehicle Trip Ends vs: Employees
On a: Weekday,
P.M. Peak Hour of Generator

Number of Studies: 51
Avg. Number of Employees: 744
Directional Distribution: 48% entering, 52% exiting

Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.40	0.24 - 1.11	0.65

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.82 Ln(X) + 0.31

R^2 = 0.93

Manufacturing
(140)

Average Vehicle Trip Ends vs: Employees
On a: Saturday,
Peak Hour of Generator

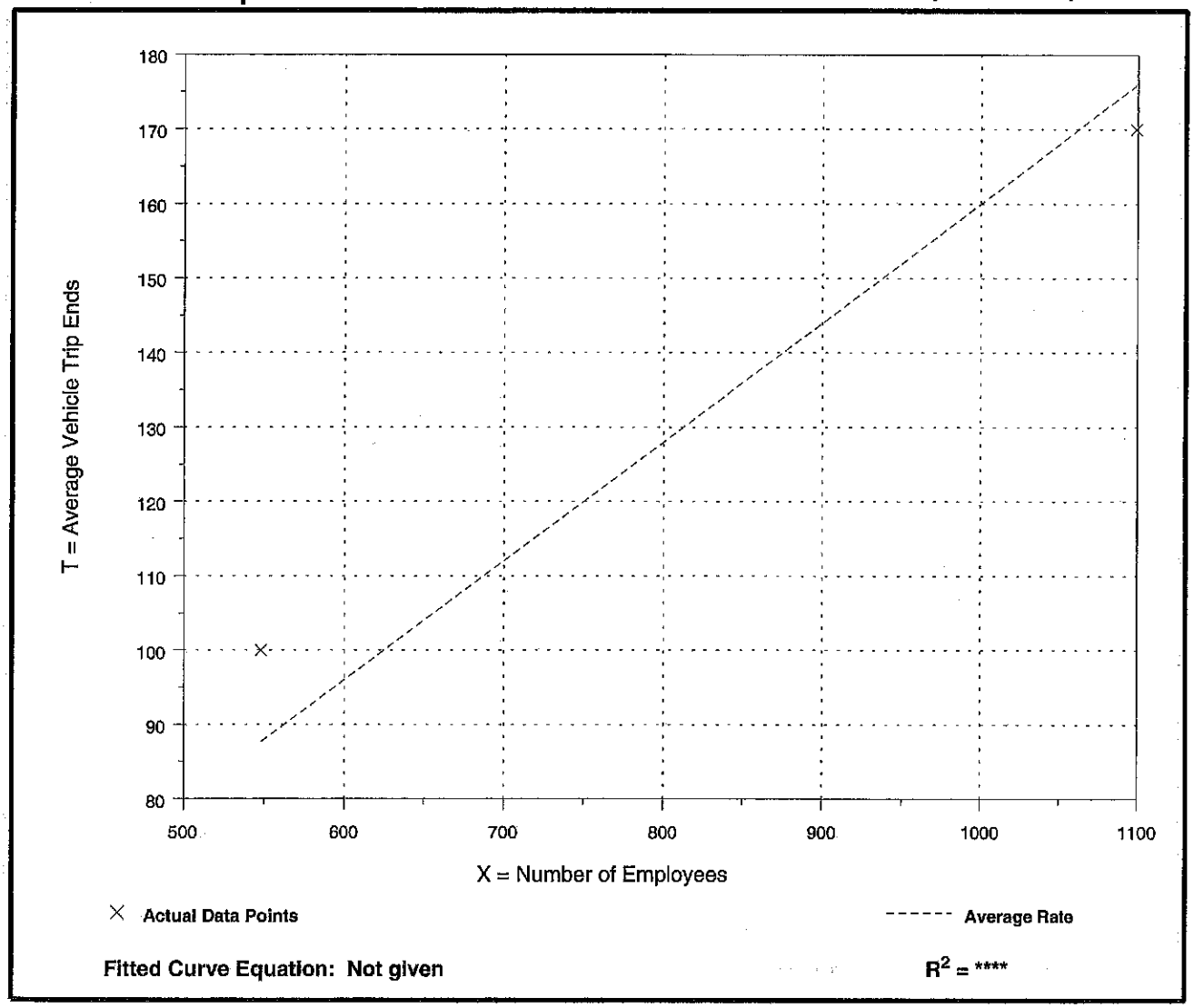
Number of Studies: 2
Avg. Number of Employees: 824
Directional Distribution: Not available

Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.16	0.15 - 0.18	*

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: Not given

R^2 = ****